



Saybolt LP

Voyage Analysis Report (VAR)

DISCHARGE

Saybolt

A 100 GRADE OIL TEST

DISCHARGE					Reference No. 5122010	Voyage/Trip No.	C/P Date (MM-DD-YY)	Page No.
Vessel KIRBY 29108					Cargo SCN		Type of Voyage SIMPLE	
Loading Port/Terminal/Berth			Arrived (MM-DD-YY)	Sailed (MM-DD-YY)	Discharge Port/Terminal/Berth EXXONMOBIL BAYTOWN		Arrived (MM-DD-YY) 11/12/20	Sailed (MM-DD-YY) 11/12/20
Quantity Unit Bbls Gals M3 LTRS X			Supplier	Receiver	VCF TABLE USED			
					Shore Load	Shore Disc 6B	Vessel Load	Vessel Disc 6B
DESCRIPTION		API/ Density	TCV	FW	GSV	S&W	NSV	Calculation Reference

I. Comparison of Shore Quantities in Custody Transfer

Bill of Lading	1.				0.00		0.00	(1)
Outturn	2.	33.0	24,746.24		24,746.24		24,746.24	(2)
Diff.	3.		24,746.24	0.00	24,746.24	0.00	24,746.24	(3)=[(2)-(1)]
Diff. %	4.		#DIV/0!		#DIV/0!		#DIV/0!	(4)=(3)/(1) X 100
Recalculated B/L	5.	0.00	(A)	0.00	Recalculate if B/L and O/T use different tables		0.00	(5) (A) Vol. Diff.

II. Vessel/Shore Quantities at (1) Load Port(s)

Vessel	Sailing	A.	0.00	0.00	0.00	LIQUID	NON-LIQUID	(A)
	OBQ (All)	B.	0.00	0.00	0.00	0.00	0.00	(B)
	Loaded	C.	0.00	0.00	0.00			(C)=(A)-(B)
	Difference	D.	0.00	0.00	0.00			(D)=(C)-[(1)or(5)]
	Difference %	E.	0.000%		0.000%			(E)=(D)/[(1)or(5)] X100
Load Vessel Ratio		F.	#DIV/0!					(F)=(C)/[(1)or(5)]
Load VEF		G.	1.00000					(G)
Theoretical Shore		H.	0.00					(H)=(C)/(G)
Theoretical Difference		I.	0.00					(I)=(H)-[(1)or(5)]
Theoretical Difference %		J.	0.000%					(J)=(I)/[(1)or(5)] X100

III. Vessel/Shore Quantities at (2) Discharge Port(s)

Vessel	Arrival	K.	24,877.14	0.00	24,877.14	LIQUID	NON-LIQUID	(K)
	ROB (All)	L.	0.00	0.00	0.00	0.00	0.00	(L)
	Discharged	M.	24,877.14	0.00	24,877.14			(M)=(K)-(L)
	Difference	N.	130.90	0.00	130.90			(N)=(M)-(2)
	Difference %	O.	0.529%		0.529%			(O)=[(N)/(2)] X100
Discharge Vessel Ratio		P.	1.00529					(P)=(M)/(2)
Discharge VEF		Q.	1.00000					(Q)
Theoretical Shore		R.	24,877.14					(R)=(M)/(Q)
Theoretical Difference		S.	(130.90)					(S)=(2)-(R)
Theoretical Difference %		T.	(0.529%)					(T)=[(S)/(2)] X100

IV. Vessel's Comparison of Loading and Discharge Port(s) VEF TABLE MUST BE CONSISTENT

Transit	Difference	U.	24,877.14	0.00	24,877.14			(U)=(K)-(A)
	Difference %	V.	#DIV/0!		#DIV/0!	LIQUID	NON-LIQUID	(V)=[(U)/(A)] X100
OBQ/ROB	Difference	W.	0.00	0.00	0.00	0.00	0.00	(W)=(B)-(L)

TCV Difference (3) - OBQ (B) + ROB (L)				(S&W (1)/GSV(1)) X 100		(S&W(2)/GSV(2)) X 100			
Ajusted TCV Difference	24,746.24	(Quantity) /	#DIV/0!	S&W % at Load Port	#DIV/0!	S&W % at Disc Port	0.000		

Comments:

Prepared by: Bradley Stephens	Title: Account coordinator	Company: Saybolt LP	Date Complete (MM-DD-YY): 11/16/20
----------------------------------	-------------------------------	------------------------	---------------------------------------

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/I/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Time Log

12 Nov 2020 (Thursday)

01:15	ST 349 gauged open
01:20	First Line Ashore
01:40	Moored Alongside Berth (All Fast)
02:05	Saybolt onboard before Operation
02:10	Commenced Initial Inspection
02:50	Completed Initial Inspection and Calculations, Tank(s) Measured and Sampled
04:45	Hose / Arm Connected
05:45	COMMENCED DISCHARGE
06:00	Suspended for LFV
08:55	Commenced LFV Inspection
09:05	Completed LFV Inspection
10:00	Resumed discharge
18:20	COMPLETED DISCHARGE
19:10	Saybolt onboard after Operation
19:15	Hose / Arm Disconnected
19:22	Commenced Final Inspection
19:45	Completed Final Inspection and Calculations, Tank(s) Inspected on Emptiness
20:00	Documents on Board
20:10	ST 349 gauged closed
22:00	Object Sailed / Departed

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Sample Report

Grade	Description	Sealed	Distribution	Amount	Volume
SCN	OPEN AVG 1-3WINGS	Open	Retain	6	1 liters
SCN	ST 349 OPEN TOP, UPPER, MIDDLE, LOWER, BOTTOM	Open	Retain	5	1 liters
SCN	ST 349 CLOSE TOP, UPPER, MIDDLE, LOWER, BOTTOM	Open	Retain	5	1 liters
Total Samples				16	

Vessel's samples were taken using vessel's closed sampling system.

Information	
Samples drawn by	Saybolt Inspector
Shoretank sampling location	Top of tank
Type / condition of sampling containers	Clean glass bottles/tins
Loadport samples delivered by	Saybolt Inspector
received by	Vessel

Remarks:
Samples retained by Saybolt will be held for 90 days (unless otherwise specified) at the end of which they shall be disposed of.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Shore Tank Report Single

Shore tank 349

Shore tank measurement		Open	Close
Date / Time of measurement		12 Nov 2020 01:15	12 Nov 2020 20:10
Average Innage	FT/IN	23-1-2	32-5-4
Average temp.	°F	70.4	71.8
T.O.V.	Barrels	61,724.88	86,638.42
Water	FT/IN	TRACES	TRACES
Floating roof	Barrels	-5.29	-4.48
Ambient temp.	°F	69.00	73.00
Tank shell temp.	°F	70.00	72.00
CTsh		1.00012	1.00015
G.O.V.	Barrels	61,727.00	86,646.94
API 60°F		34.10	33.80
V.C.F.	6B	0.99522	0.99459
G.S.V.	barrels 60°F	61,431.94	86,178.18
G.S.V.	US Gallons 60°F	2,580,141.48	3,619,483.56
Table 8	MPMS 11.5.1.4.4	7.114927771	7.127858692
Pounds		18,357,520	25,799,167

Totals		GSV		NSV
T.O.V.	Barrels	24,913.54	Cu m 15°C	3,932.529
G.O.V.	Barrels	24,919.94	Cu m 60°F	3,934.338
			Barrels 60°F	24,746.24
Density 15°C	kg/l	0.85942	US Gallons 60°F	1,039,342.08
RD 60/60°F		0.85987	Metric Tons Vac	3,379.684
API 60°F		33.06	Metric Tons Air	3,375.474
			Long Tons Air	3,322.164
Average Temp.	°F	75.3	Short Tons Air	3,720.824
			Pounds	7,441,647
Tables used:	6B and W.C.F. MPMS 11.5.1.4.4.			

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Bamdt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Shore Tank Subtotals

Shore tank Subtotals	Totals	349
----------------------	--------	-----

Gross Standard Volume

Cu m 15°C	3,932.529	3,932.529
Cu m 60°F	3,934.338	3,934.338
Barrels 60°F	24,746.24	24,746.24
US gallons 60°F	1,039,342.08	1,039,342.08
Metric Tons Vac	3,379.684	3,379.684
Metric Tons Air	3,375.474	3,375.474
Long Tons Air	3,322.164	3,322.164
Short Tons Air	3,720.824	3,720.824
Pounds Air	7,441,647	7,441,647
Density 15°C		0.85942
API 60°F		33.06
RD 60/60°		0.85987

Net Standard Volume

Cu m 15°C	3,932.529	
Cu m 60°F	3,934.338	
Barrels 60°F	24,746.24	
US gallons 60°F	1,039,342.08	
Metric Tons Vac	3,379.684	
Metric Tons Air	3,375.474	
Long Tons Air	3,322.164	
Short Tons Air	3,720.824	
Pounds Air	7,441,647	

Total Calculated Volume

Barrels 60°F	24,746.24	24,746.24
US gallons 60°F		1,039,342.08

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Ullage Report Arrival

Survey Date and Time 12 Nov 2020 02:50

API 60°F

33.00

Tank	ullage FT/IN	ullage corr FT/IN	TOV Barrels	Free water FT/IN	Barrels	GOV Barrels	Temp °F	VPF table 6B	GSV Barrels 60°F
1P	4-6-0		4,472.32	ND		4,472.32	73.40	0.99389	4,444.99
1S	4-5-6		4,482.18	ND		4,482.18	73.40	0.99389	4,454.79
2P	5-0-0		4,130.52	ND		4,130.52	73.30	0.99394	4,105.49
2S	5-0-4		4,154.63	ND		4,154.63	73.40	0.99389	4,129.25
3P	4-11-6		3,877.48	ND		3,877.48	73.40	0.99389	3,853.79
3S	4-11-4		3,912.74	ND		3,912.74	73.40	0.99389	3,888.83
Totals			25,029.87			25,029.87			24,877.14

Summary Totals

On-board figures	ROB information	Draft	Correction
GSV Barrels 60°F	24,877.14	FORE FT/IN	10-0 TRIM FT/IN nil
TCV Barrels 60°F	24,877.14	AFT FT/IN	10-0 LIST *

Trim/List correction applied: No

On-board figures	Discharged figures	Average Product Temp °F
GSV Cu m 15°C	3,953.331 Cu m 15°C Disch.	73.4
GSV Cu m 60°F	3,955.149 Cu m 60°F Disch.	
GSV Barrels 60°F	24,877.14 GSV Disch. Bbls 60°F	
GSV US gallons 60	1,044,839.88 GSV Disch. US Glns 60°F	
MT vac	3,398.799 MT Vac Disch.	
MT air	3,394.567 MT Air Disch.	
LT	3,340.956 LT Disch.	
ST	3,741.871 ST Disch.	
Pounds	7,483,741 Pounds Disch.	

Signed by: Ship's representative

Name:

Rank: *Barge Master*

Saybolt representative

DB

Saybolt Inspector

Measurements in accordance with API standards.

Saybolt LP, 703 South FM 585 Rd, 77523 Baytown, United States

Tel, FAX

Website: E-mail:

All our activities are carried out under Saybolt's terms and conditions, available at www.cornlab.com/saybolt/terms-conditions

SAYBOLT V4.1.1.8 20090908

Date: 16 Nov 2020 13:25

Page 5 of 10

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

ROB Report

Survey Date and Time 12 Nov 2020 19:45

Survey Date and Time: 12 NOV 2020 19:45

Tank	Total Observed Volume		Liquid Oil		Non-Liquid		Free water	
	sounding FT/IN	Volume Barrels	sounding FT/IN	Volume Barrels	sounding FT/IN	Volume Barrels	sounding FT/IN	Volume Barrels
1P	NIL		NIL		NIL		NIL	
1S	NIL		NIL		NIL		NIL	
2P	NIL		NIL		NIL		NIL	
2S	NIL		NIL		NIL		NIL	
3P	NIL		NIL		NIL		NIL	
3S	NIL		NIL		NIL		NIL	
Summary Totals								
On-board figures				Draft		Corrections		
Total Observed Volume		Barrels		Fore	FT/IN	2.00	Trim	FT/IN
Free Water		Barrels		Aft	FT/IN	2.00	List	*
Gross Observed Volume		Barrels	Sea water temperature					
Liquid Volume		Barrels	Ambient temperature					
Non-Liquid Volume		Barrels	Trim/List correction applied?					
Wedge formula applied?								
Remarks								
1. Above volumes presumed to be at standard temperature unless otherwise noted.								
2. Above volumes exclude any clingage.								
3. Measurements are taken at one point only unless otherwise stated.								

Signed by: Ship's representative
Name:
Rank: Barge Master

Saybolt representative
GM
Saybolt Inspector

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Reference Height and Measurement data report

Manual Tank Heights

Tank	Calibrated Reference Height in FT/IN	Found Reference Height in FT/IN		Gauging Location
		Before	After	
1P	16-8-0	16-8-0	16-8-0	Center
1S	16-8-0	16-8-0	16-8-0	Center
2P	16-7-6	16-7-6	16-7-6	Center
2S	16-8-2	16-8-2	16-8-2	Center
3P	16-5-4	16-5-4	16-5-4	Center
3S	16-5-6	16-5-6	16-5-6	Center

* Tanks where full sounding depth could not be reached due to obstructions or tank contours.

Draft	Before		After	
	FT/IN		FT/IN	
FWD	FT/IN	10-0	FT/IN	2-0
AFT	FT/IN	10-0	FT/IN	2-0

Measurement data Before Operations

Survey Date and Time 12 Nov 2020 02:50

Gauge equipment type Saybolt equipment
Gauge equipment used UTI
Gauge equipment number G23961
Temp equipment type Saybolt equipment
Temp equipment used UTI
Temp equipment number G23961

Measurement data After Operations

Survey Date and Time 12 Nov 2020 19:45

Gauge equipment type Saybolt equipment
Gauge equipment used UTI
Gauge equipment number G23959

Signed by: Ship's representative

Name:

Rank: Barge Master

Saybolt representative

GM

Saybolt Inspector

Saybolt LP, 703 South FM 565 Rd, 77523 Baytown, United States

Tel. FAX

Website: E-mail:

All our activities are carried out under Saybolt's terms and conditions, available at www.corelab.com/saybolt/terms-conditions

SALA R/FD/VA.1.2.2.20090906

Date: 16 Nov 2020 13:25

Page 7 of 10

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108

Product SCN

Outturn date: 12 Nov 2020

Letter of Protest

Dear Sirs,

This is to advise that we, Saybolt, as Independent Surveyors on behalf of our clients do hereby lodge protest in respect of:

The difference between the shore and barge is greater than 0.25%.

Furthermore, on behalf of our client, we reserve the right to refer to this matter at a later date.

Signature of this document is acknowledged of receipt only and not an admission of responsibility for the incident.

Signed by: Ship's representative

Name:

Rank:

Shore representative

Loading Master

Saybolt representative

Saybolt Inspector

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Bamdt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

API Checklist Discharge

Before Discharge	Standards Ref.
Participated in the key meeting	API 17.1 Yes
Closed / restricted measurement and sampling equipment used onboard	API 17.2 Not Applicable
Vessel capacity tables apply, without adjustments, to gauge point used	US Customs Yes
Recorded vessel capacity table reference gauge heights before gauging	API 17.1 Yes
Discussed measurements with US Customs inspector before proceeding	US Customs Yes
Used Saybolt calibrated gauging and temperature equipment	API 3.1a Yes
Recorded shore automatic gauges and temperatures	API 17.1 Not Applicable
Personally measured shore product, free water & temperature	API 3.1a Yes
Verified shore line fill and capacity	API 17.1 Yes
Measured / recorded ambient air temperature for shell expansion calculation	API 12.1 Yes
Obtained shore samples using Manual sampling or Automatic sampling	API 8.1/8.2 Manual
Automatic sampling pot inspected for cleanliness	API 17.1 Not Applicable
Shore line sample at dock taken before discharge	API 17.1 No
Recorded vessel's draft readings before discharge	API 17.1 Yes
Check sea valve security and recorded seal numbers before discharge	API 17.1 Not Applicable
All deck lines drained into the vessel's cargo tanks before gauging	API 17.1 Yes
Measured vessel's cargo, slops, free water, non-cargo areas & temperatures	API 17.2 Yes
Manual gauging not permitted / possible; vessel's automatic gauges used	API 17.2 Not Applicable
Inspected ballast tanks for presence of cargo	API 17.1 Not Applicable
Sampled each cargo tank and slop tank individually; samples labeled	API 17.1 No
Collected load port samples from the vessel; signed receipt for vessel representative.	API 17.1 Yes
Bunker quantities were recorded	API 17.1 Not Applicable
Volume calculated independently before discharging began	API 17.1 No
Transit differences protested, if found	API 17.1 Not Applicable
After Discharge	Standards Ref.
Tanks COW'd during discharge	API 17.1 Not Applicable
Line sample taken during discharge	API 17.1 Not Applicable
Time Log Prepared	API 17.1 Yes
Recorded vessel's draft readings after discharge	API 17.1 Yes
All deck lines drained into the vessel's cargo tanks before gauging	API 17.1 Not Applicable
Check sea valve security and recorded seal numbers after discharge	API 17.1 Not Applicable
Bunker quantities were recorded after discharge	API 17.1 Not Applicable
Shore and vessel line fill verified after vessel discharge	API 17.6 Not Applicable
Every cargo tank gauged or visually verified for ROB	API 17.4 Yes
Measured ROB using Saybolt equipment at low end of tank	API 17.4 Not Applicable
ROB measured at points other than the reference gauge point	API 17.4 Not Applicable
ROB sampled / temperatured if necessary; samples labeled	API 17.4 Not Applicable
Calculations (or tables) for trim and wedge were used as applicable	API 17.4 Not Applicable
Personally measured shore product, free water & temperature	API 3.1a Yes
Measured / recorded ambient air temperature for shell expansion calculation	API 12.1 Yes
Shore tank samples taken after discharge	API 17.1 Yes
Automatic sampler inspected and appeared to be functioning properly	API 17.1 Not Applicable
Vessel Experience Factor data obtained from vessel's records	API 17.1 Not Applicable
Appropriate Letters of Protest issued and signed before leaving job site	API 17.1 Not Applicable
Copies of meter tickets and meter proving records obtained	API 17.1 Not Applicable
Meters were proved before or after cargo transfer	API 17.1 Before

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389 Spring
United States
Mr. W.W. Barndt
5122010-20 / Trip # USEBARGARO-2010-078



Job No 13052/00002229.0000/01/1/20
Report date 16 Nov 2020
Installation Houston, United States of America, ExxonMobil Baytown

Barge Kirby 29108
Product SCN

Outturn date: 12 Nov 2020

Line Displacement Report

Mineral

On your request a line displacement was carried out before discharge of the above mentioned vessel, in order to check the condition of the shoreline, and we report as follows:

Capacity of shoreline from tankside to ships manifold	1,300	
Shore tank(s) used	349	
Tanks API 60°F	34.10	34.10
Shore line(s) used	116	
Shore line API 60°F	34.10	
Ship tank(s) used	3W's	
Ships API 60°F	33.00	

Shore Line Displacement Comparison

		Observed Volume Barrels	Temperature °F	Standard Volume Barrels
Shore				
A	Shore tank 349 quantity before	61,724.88		
B	Shore tank 349 quantity after	63,028.77		
C	Shore tank difference (B-A)	1,303.89		
D	Shore tank quantity before	0		
E	Shore tank quantity after			
F	Shore tank difference (E-D)	0		
G	Total shore difference (C+F)	1,303.89		
Vessel				
K	Ship tanks quantity before	7,791.22		
L	Ship tanks quantity after	6,582.25		
M	Ships difference (K-L)	1,208.97		
N	Ship line quantity			
O	Difference including Ship line (M-N)	1,208.97		
Totals				
	Difference Ship vs Shore (O-G)	Δ Quantity	Δ %	
	Observed Volume Barrels	94.92	7.28	
	Standard Volume Barrels			

Signed by: Ship's representative
Name:
Rank:

Shore representative
Loading Master

Saybolt representative
Saybolt Inspector