TCEC				v					NTAL QUALITY	679	· · · · · · · · · · · · · · · · · · ·									
			Com	pleted by PW							Com	plete	d b	y Lal	oora	tory				
	PWS Name:	Shin-I	Etsu Silicones of A	merica					Labor	ratory Name:										
	PWS ID#:	TX 020	00619						тс	EQ Lab ID #:	A&B Labs									
Р	WS Address:	5650 H	wy 332 E, Freepor	t, TX 7754	1				Laborat	ory Address	10100 East F Houston, TX	reev 770:	vay 29	, Su	iite	100				
F	WS Contact:	Jeremy	Vogel						Laborat	ory Address	TX 275 AHughes/SC	arpe		∍r/S	Gar	za				
PWS Cont	act Phone #:	979-23	0-9595 ext. 664						Labora	tory Contact:	713-453-606	J								
Inhibit	or or Stablizer I		Phosphate	Silica	bonate															
TR	EATMENT	•	Alkalinity Dosage Rate:	Inhibitor Do				Laboratory Co	ontact Phone #:											
	Sample ¹	tune (the	Compliance	Sample Infor	***						Parameters Requested checked, * If inhibitors of									
Temp	erature and pH		Are temperature and pH included	on the sampling e			ture and pH mea	sured	n the field within 15 m	ninutes of sample	these parameters should			naly.						
	orataro ana pri	(1 61 11) 1	Laboratory Approval Form on file	1	Collection	collection?	surements						T T	T		Ī	(2)			
Facility ID (e.g. DS01,	Sample Point ID (e.g. DSTWQP,			Posts				olacement	Original Sample	Original		Alkalinity (1927)	Calcium (1919)	Conductivity (1064	Hardness (1915)	Iron (1028)	Manganese (1032) Sodium (1052)	Sulfate (1055)	TDS (1930)	Silica (1049) *
PBCU001)	EWQP)	s	ample Location	Date (MMDDYY)	Time - 24 hr (HHMM)	рН	Temp (°C)	S & 8	ID #		Lab Sample ID	Alka	S S	5 8	Harc	Iron	Man	Sulf	TDS La	Silic
pbcu001	EWQP	5650 E H 77541	IWY 332, Freeport, Tx	12/17/19	פורט	7.85	17.5				19121344.01	V ,	V \	√ √	' V	V	√ v	/ 1	V	
DS01	DSTWQP	5650 E Hw	y 332, Freeport, Tx 77541	12/17/19	0715	7.9	8.0				1.02	V ,	V 1	√ √	′ √	√	√ v	/ √	V	
												V	/ \	/ 1	√	V	√ v	/ √	V	
		* * * * * * * * * * * * * * * * * * * *										v ,	V 1	/ 1	✓	V	V V	/ \	V	
												v ,	V 1	/ <	√	V	V V	′ √	V	
														V V			v v	/ 1	V	
Parameters. This i	ncludes, but not l	imited to the m	a and correct and sites selected for neasurement of pH and temperature, Title 8, Chapter 37.10)								Sample Sample Samples received unpresent			Upor		alpt (1	mbient		
Name of Authori				2/1	Orga	anization			Date		Rejection Code (if applicable):				tual / C le tem			. Le	-05	= 4
Jelem Chain of Custo	y Vog	el	N	on	8	hin Etsi	Sil:com	nes	12-17	1-19	Date & Time of Sample Preservation (Acidified): 12.15.19 @ 10.	19		The	rmome	eter iE) #: 	170	176	29
Relinquished By (S	11/	Engl		Date/Time:	1100 /10	Su In	ulida		127	Date/Time:	Laboratory Comments:	1	4	10	/					
Kogu	12/2017)	rot		Daté/Time: 12-17-149	I V B	By Lab (Signa			iəfi	7/19 12:3	3									

Laboratory Analysis Report

Job ID: 19121344



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name:

PWS ID #TX0200619 / Shin-Etsu Silicones of America

Report To: Client Name: Shin Etsu Silicones America P.O.#.: 40213188

Attn: Jeremy Vogel Sample Collected By: Jeremy Vogel Client Address: 5650 Hwy. 332 E. Date Collected: 12/17/19

City, State, Zip: Freeport, Texas, 77541

A&B Labs has analyzed the following samples...

Client Sample IDMatrixA&B Sample IDPBCU001 / EWQP / 5650 E. Hwy. 332,Drinking Water19121344.01

Freeport, TX 77541

DS01 / DSTWQP / 5650 E. Hwy. 332, Drinking Water 19121344.02

Freeport, TX 77541

sothe:

Released By: Senthilkumar Sevukan
Title: Assistant Lab Manager

Date: 12/27/2019



This Laboratory is NELAP (T104704213-19-21) accredited. Effective: 08/26/2019; Expires: 3/31/2020

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

Date Received: 12/17/2019 12:33

Total Number of Pages:

Page 1 of 12 Report Number: RPT191227008

LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID: 19121344 Date: 12/27/2019

General Term Definition

Back-WtBack WeightPost-WtPost WeightBRLBelow Reporting Limitppmparts per millioncfucolony-forming unitsPre-WtPrevious Weight

Conc. Concentration Q Qualifier

D.F. Dilution Factor RegLimit Regulatory Limit

Front-Wt Front Weight RPD Relative Percent Difference LCS Laboratory Check Standard RptLimit Reporting Limit

LCSD Laboratory Check Standard Duplicate SDL Sample Detection Limit

MS Matrix Spike surr Surrogate

MSD Matrix Spike Duplicate T Time

MW Molecular Weight TNTC Too numerous to count

J Estimation. Below calibration range but above MDL

Qualifier Definition

M6 Not calculated. Sample concentration high, more than 4X spike concentration. Control limits do not apply."The sample randomly

selcted as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples.

LABORATORY TEST RESULTS



Date 12/27/2019 Job ID: 19121344

Shin Etsu Silicones America Client Name: Attn: Jeremy Vogel

Project Name: PWS ID #TX0200619 / Shin-Etsu Silicones of America

Client Sample ID: Job Sample ID: PBCU001 / EWQP / 5650 E. Hwy. 332, Freeport, 19121344.01

1469.0

888.0

Date Collected: TX 77541

Sample Matrix **Drinking Water** 12/17/19

Time Collected: 07:15 Other Information:

SM 2510B

SM 2540C

Conductance

TDS

Test Method Parameter/Test Description Result Units DF Rpt Limit Reg Limit Q Date Time Analyst EPA 200.7 Calcium 27.8 mg/L 20 12/20/19 20:23 BDC Iron 1.215 mg/L 1 0.01 0.3 12/19/19 13:00 BRR Manganese 0.040 mg/L 1 0.01 0.05 12/19/19 13:00 BRR Sodium 325.0 12/20/19 13:14 BDC mg/L 500 50 EPA 300.0 Chloride 184 mg/L 50.00 5 12/18/19 22:35 RR Sulfate 0.167 mg/L 1.00 0.1 12/19/19 12:33 RR SM 2320B 340 20 Alkalinity, as CaCO31 mg/L 1 12/24/19 14:00 LEB SM 2340C **Total Hardness** 116 mg CaCO3/L 5 12/24/19 13:15 LEB 1

umho/cm

mg/L

2

10

500

1

12/24/19 13:00 LEB

12/18/19 13:30 CO

LABORATORY TEST RESULTS



Job ID: 19121344

Date 12/27/2019

Sample Matrix

Drinking Water

Client Name: Shin Etsu Silicones America Attn: Jeremy Vogel

PWS ID #TX0200619 / Shin-Etsu Silicones of America Project Name:

Client Sample ID: Job Sample ID: DS01 / DSTWQP / 5650 E. Hwy. 332, Freeport, 19121344.02

Date Collected: TX 77541

12/17/19

Time Collected: 07:15

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
EPA 200.7									
	Calcium	28.2	mg/L	20	2			12/20/19 20:24	BDC
	Iron	0.345	mg/L	1	0.01	0.3		12/19/19 13:04	BRR
	Manganese	0.011	mg/L	1	0.01	0.05		12/19/19 13:04	BRR
	Sodium	323.0	mg/L	500	50			12/20/19 13:18	BDC
EPA 300.0									
	Chloride	240	mg/L	50.00	5			12/18/19 22:56	RR
	Sulfate	0.258	mg/L	1.00	0.1			12/19/19 12:55	RR
SM 2320B									
	Alkalinity, as CaCO31	550	mg/L	1	20			12/24/19 14:00	LEB
SM 2340C									
	Total Hardness	116	mg CaCO3/L	1	5			12/24/19 13:15	LEB
SM 2510B									
	Conductance	1478.0	umho/cm	1	2			12/24/19 13:00	LEB
SM 2540C									
	TDS	856.0	mg/L		10	500		12/18/19 13:30	CO



Analysis: Method: SM 2540C Reporting Units: mg/L

Samples in This QC Batch: 19121344.01,02

Sample Preparation: PB19121822 Prep Method: SM 2540C Prep Date: 12/18/19 13:16 Prep By: CObuekwe

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
TDS		BRL	mg/L		10	

QC Type: Dupli	icate					
QC Sample ID:	19121303.01					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
TDS	190.0	192.0	mg/L	1	5	

QC Type: L	.CS and LCSD										
		LCS	LCS	LCS	LCSD	LCSD	LCSD	555	RPD	%Recovery	
Parameter	S	pk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
TDS		500	494.0	98.8						80-120	



Analysis: Method: EPA 300.0 Reporting Units: mg/L

Samples in This QC Batch: 19121344.01,02

Sample Preparation: PB19121910 Prep Method: EPA 300.0 Prep Date: 12/18/19 14:30 Prep By: RRaval

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Chloride	16887-00-6	BRL	mg/L	1.00	0.1	
Sulfate		BRL	mg/L	1.00	0.1	

QC Type: LCS and	d LCSD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Chloride	1	0.975	97.5	1	0.938	93.8	3.8	20	90-110	
Sulfate	1	0.915	91.5	1	0.998	99.8	8.7	20	90-110	

QC Type: MS and MSD												
QC Sample ID:	19121289.01											
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec		
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual	
Chloride	46.6	5	51.3	94						80-120		
Sulfate	3.05	5	8.07	100						80-120		



Analysis: Method: EPA 200.7 Reporting Units: mg/L

Samples in This QC Batch: 19121344.01,02

Digestion: PB19121911 Prep Method: EPA 200.7 Prep Date: 12/19/19 07:15 Prep By: Mwissman

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Calcium	7440-70-2	BRL	mg/L	1	0.1	
Iron	7439-89-6	BRL	mg/L	1	0.01	
Manganese	7439-95-5	BRL	mg/L	1	0.01	
Sodium	7440-23-5	BRL	mg/L	1	0.1	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Calcium	1	1.006	101	1	1.026	103	2	20	85-115	Quai
Iron	1	0.982	98.2	1	0.974	97.4	0.8	20	85-115	
Manganese	1	0.970	97	1	0.964	96.4	0.6	20	85-115	
Sodium	1	1.032	103	1	1.032	103	0.0	20	85-115	

QC Type: MS and MSD											
QC Sample ID: 191214	410.01										
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Calcium	79.7	1	N/A	N/A						75-125	M6
Iron	0.094	1	1.061	96.7						75-125	
Manganese	BRL	1	0.952	94.8						75-125	
Sodium	35.1	1	N/A	N/A						75-125	M6



Analysis: Method: SM 2510B Reporting Units: umho/cm

Samples in This QC Batch: 19121344.01,02

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Conductance		BRL	umho/cm	1	2	

QC Type: Dupli	cate					
QC Sample ID:	19121270.01					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Conductance	227.6	225.3	umho/cm	1	20	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Conductance	100	100.3	100	•					90-110	



Analysis: Method: SM 2340C Reporting Units: mg CaCO3/L

Samples in This QC Batch: 19121344.01,02

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Total Hardness		BRL	mg CaCO3/L	1	5	

QC Type: Duplica	ate					
QC Sample ID:	19121270.01					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Total Hardness	39	39	mg CaCO3	0	20	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Total Hardness	1000	951	95.1	1000	951	95.1		20	80-120	



Analysis: Method: SM 2320B Reporting Units: mg/L

Samples in This QC Batch: 19121344.01,02

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Alkalinity, as CaCO3		BRL	mg/L	1	20	

QC Type: Duplicate						
QC Sample ID: 191212	270.01					
	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Alkalinity, as CaCO3	108	108		0	20	

QC Type: LCS and LCS	D									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Alkalinity, as CaCO3	1170	1226	105	1170	1221	104	0.4	20	80-120	



Sample Condition Checklist

A&B	JobID: 19121344	Date Received :	12/17/2	2019		Time I	Received : 1	2:33PM		
Clier	nt Name : Shin Etsu Silicones Ame	rica				II.				
Tem	perature : 6.6-0.5cf=6.1°C	Sample pH :	7							
Ther	mometer ID : 1707629	pH Paper ID:	72375							
		Check P	Points					Yes	No	N/A
1.	L. Cooler seal present and signed.									
2.										
3.										
4.	Sample(s) received with chain-of-custody.									
5.	C-O-C signed and dated.							Х		
6.	Sample(s) received with signed sample	e custody seal.							Х	
7.	Sample containers arrived intact. (If n	o comment).						Х		
8.	Matrix Water Soil Liquid	Sludge So	olid Cass	ette	Tube	Bulk	Badge	Food	Oth	er
٥.	I. M U U]
			_	=!					1	
9.	Sample(s) were received in appropriat	e container(s).	7 -	-				Х		
9. 10.				-				X	Х	
	Sample(s) were received in appropriat			-				X	Х	
10.	Sample(s) were received in appropriat Sample(s) were received with proper p			-					Х	
10. 11.	Sample(s) were received in appropriate Sample(s) were received with proper part All samples were logged or labeled.	preservative		-				Х	Х	
10. 11. 12.	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's	preservative found.		-				X	X	
10. 11. 12. 13.	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles	found.						X X X	X	
10. 11. 12. 13.	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles Sample volume is sufficient for analyse	found.						x x x x	X	X
10. 11. 12. 13. 14.	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles Sample volume is sufficient for analyse Samples were received within the hold	found.						x x x x	X	X
10. 11. 12. 13. 14. 15.	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles Sample volume is sufficient for analyse Samples were received within the hold VOA vials completely filled.	found. es requested.						x x x x	X	X
10. 11. 12. 13. 14. 15. 16. 17. 18	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles Sample volume is sufficient for analyse Samples were received within the hold VOA vials completely filled. Sample accepted. Has client been contacted about sub- ments: Include actions taken to resolve	found. es requested. time. out	problem:					x x x x	X	
10. 11. 12. 13. 14. 15. 16. 17. 18	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles Sample volume is sufficient for analyse Samples were received within the hold VOA vials completely filled. Sample accepted. Has client been contacted about sub-	found. es requested. time. out	problem:					x x x x	X	
10. 11. 12. 13. 14. 15. 16. 17. 18	Sample(s) were received in appropriat Sample(s) were received with proper p All samples were logged or labeled. Sample ID labels match C-O-C ID's Bottle count on C-O-C matches bottles Sample volume is sufficient for analyse Samples were received within the hold VOA vials completely filled. Sample accepted. Has client been contacted about sub- ments: Include actions taken to resolve	found. es requested. time. out	problem:					x x x x	X	

Received by: slee Check in by/date: AArnett / 12/18/2019

Phone: 713-453-6060 www.ablabs.com