

APPENDIX F

RFFA Statistical Screening Results

Station Number	Station Name	Region	Start of Record	End of Record	Statis	Period of Record	Years of Available Data	Years of Missing Data	Number of gap years filled	Regression Correlation Coefficient (R²)	Sample Size	Notes
02YJ001	HARRYS RIVER BELOW HIGHWAY BRIDGE	SW	1968	2019	Active	52	48	4	3	0.57	51	Years missing (1968, 1972, 1994, 2003). Could not extend record with confidence due to R2 value being less than 0.51.
02YJ003	PINCHGUT BROOK AT OUTLET OF PINCHGUT LAKE	SW	1986	1997	Discontinued	12	11	1	0		11	Years missing (1997).
02YN002	LLOYDS RIVER BELOW KING GEORGE IV LAKE	SW	1981	2020	Active	40	40	0	0		40	
02ZK006	RATTLING BROOK BELOW BRIDGE	SE	2007	2020	Active	14	14	0	0		14	
02ZA001	LITTLE BARACHOIS BROOK NEAR ST. GEORGE'S	SW	1978	1997	Discontinued	20	17	3	1	0.95	18	Years missing (1978, 1979, 1997). Added years (1979).
02ZA002	HIGHLANDS RIVER AT TRANS-CANADA HIGHWAY	SW	1981	2019	Active	39	37	2	0		37	Years missing (1982 and 2018)
02ZA003	LITTLE CODROY RIVER NEAR DOYLES	SW	1982	1997	Discontinued	16	14	2	1	0.83	15	Years missing (1983 and 1997). Added years (1983)
02ZB001	ISLE AUX MORTS RIVER BELOW HIGHWAY BRIDGE	SW	1962	2019	Active	58	55	3	2	0.68	57	Years missing (2003, 2018, 2019). Added years (2003 and 2019).
02ZC002	GRANDY BROOK BELOW TOP POND BROOK	SW	1982	2019	Active	38	33	5	0	0.40	33	Years missing (1982, 1983, 1991, 2004, 2016). Could not extend record with confidence due to R2 value below 0.51.
02ZD002	GREY RIVER NEAR GREY RIVER	SW	1969	2019	Active	51	37	14	5	0.88	42	Years missing (1969, 1972 - 1978, 1981, 1982, 1993, 1994, 2008, 2016). Added years (1982, 1993, 1994, 2008, 2016).
02ZE001	SALMON RIVER AT LONG POND	SW	1944	1965	Discontinued	22	16	6	0		16	Years missing (1944-1949).
02ZE004	CONNE RIVER AT OUTLET OF CONNE RIVER POND	SW	1989	2020	Active	32	32	0	0		32	
02ZF001	BAY DU NORD RIVER AT BIG FALLS	SW	1950	2020	Active	71	67	4	1	0.85	68	Years missing (1950, 1979, 1980, 2018). Added years (1979).
02ZG001	GARNISH RIVER NEAR GARNISH	SE	1958	2020	Active	63	54	9	7	0.98	61	Years missing (1958, 1990, 1991, 1994, 1996, 2009, 2011, 2014, 2018). Added years (2014, 2011, 2009, 1996, 1994, 1991, 1990)
02ZG002	TIDES BROOK BELOW FRESHWATER POND	SE	1977	1997	Discontinued	21	18	3	1	0.97	19	Years missing (1979, 1989, 1997). Added years (1979).
02ZG003	SALMONIER RIVER NEAR LAMALINE	SE	1980	2020	Active	41	38	3	2	0.82	40	Years missing (1987, 1989, 2018). Added years (1987, 1989).

Station Number	Station Name	Region	Start of Record	End of Record	Statis	Period of Record	Years of Available Data	Years of Missing Data	Number of gap years filled	Regression Correlation Coefficient (R²)	Sample Size	Notes
02ZM020	LEARYS BROOK AT PRINCE PHILIP DRIVE	SE	1985	2020	Active	36	33	3	0	0.42	33	Years missing (1985, 1986, 1991). Could not extend record with confidence due to R2 value below 0.51.
02ZK003	LITTLE BARACHOIS RIVER NEAR PLACENTIA	SW	1983	2019	Active	37	35	2	1	0.70	36	Years missing (1994, 2018). Years added (1994).
02ZK004	LITTLE SALMONIER RIVER NEAR NORTH HARBOUR	SW	1983	2019	Active	37	36	1	0		36	Years missing (2018).
02ZG004	RATTLE BROOK NEAR BOAT HARBOUR	SE	1981	2020	Active	40	38	2	2	0.87	40	Years missing (1993, 1996). Years added (1993, 1996).
02ZH002	COME BY CHANCE RIVER NEAR GOOBIES	SE	1961	2019	Active	59	46	13	4	0.83	50	Missing years (1961-1971, 1984, 2010, 2018). Years added (2010, 1984, 1970, 1961).
02ZK001	ROCKY RIVER NEAR COLINET	SE	1948	2019	Active	72	67	5	5	0.83	72	Missing years (1949, 1961, 1989, 1994, 2008). Added all missing years.
02ZK005	TROUT BROOK NEAR BELLEVUE	SE	1986	1997	Discontinued	12	6	6	5	0.88	11	Years missing (1987, 1989, 1990, 1991, 1994, 1997). Years added (all but 1997).
02ZL003	SPOUT COVE BROOK NEAR SPOUT COVE	SE	1979	1997	Discontinued	19	18	1	0		18	
02ZL004	SHEARSTOWN BROOK AT SHEARSTOWN	SE	1983	2019	Active	37	35	2	2	0.66	37	Years missing (1994, 1996). Added years (1994, 1996).
02ZL005	BIG BROOK AT LEAD COVE	SE	1985	2020	Active	36	35	1	1	0.74	36	Years missing (2014). Added years (2014).
02ZM009	SEAL COVE BROOK NEAR CAPPAHAYDEN	SE	1979	2019	Active	41	40	1	0		40	Years missing (2018)
02ZM006	NORTHEAST POND RIVER AT NORTHEAST POND	SE	1953	2019	Active	67	50	17	0	0.38	50	Years missing (1953 -1969). Could not extend record with confidence due to R2 value below 0.51.
02ZK002	NORTHEAST RIVER NEAR PLACENTIA	SE	1979	2019	Active	41	41	4	3	0.79	40	In the 2014 study this station did not pass the statistical tests. Missing years (2002, 2004, 2016, 2018). Added years (2002, 2004, 2016).
02ZM008	WATERFORD RIVER AT KILBRIDE	SE	1974	2020	Active	47	43	4	3	0.54	46	Years missing (1985, 1988, 1994, 2018). Added years (1985, 1988, 1994).
02ZM010	WATERFORD RIVER AT MOUNT PEARL	SE	1981	1996	Discontinued	16	15	1	0		15	Years missing (1996).
02ZM016	SOUTH RIVER NEAR HOLYROOD	SE	1983	2019	Active	37	36	1	0		36	Years missing (2018).
02ZM017	LEARY BROOK AT ST. JOHN'S	SE	1983	1998	Discontinued	16	15	1	1	0.51	16	Years missing (1998).

Station Number	Station Name	Region	Start of Record	End of Record	Statis	Period of Record	Years of Available Data	Years of Missing Data	Number of gap years filled	Regression Correlation Coefficient (R²)	Sample Size	Notes
02ZM018	VIRGINIA RIVER AT PLEASANTVILLE	SE	1984	2020	Active	37	33	4	3	0.40	36	Years missing (1994, 1998, 2014, 2018). Added years (1994, 1998, 2014).
02ZM019	VIRGINIA RIVER AT CARTWRIGHT PLACE	SE	1985	1998	Discontinued	14	14	0	0		14	
02ZM021	SOUTH BROOK AT PEARL TOWN ROAD	SE	1986	1998	Discontinued	13	13	0	0		13	
02YK002	LEWASEECHJEECH BROOK AT LITTLE GRAND LAKE	SW	1952	2020	Active	69	56	13	2	0.99	58	Years missing (1952, 1953, 1955, 1967-1972, 1980, 1981, 1986, 2008). Added years (1980, 1986).
02ZN001	NORTHWEST BROOK AT NORTHWEST POND	SE	1966	1996	Discontinued	31	28	3	2	0.60	30	Years missing (1971, 1986, 1996). Added years (1971, 1986).
02ZN002	ST. SHOTTS RIVER NEAR TREPASSEY	SE	1985	2019	Active	35	23	12	11	0.91	34	Years missing (1989 -1991, 1994, 1996, 2000, 2006, 2008, 2009, 2011, 2012, 2017). Added years all but 2017.

APPENDIX G

Annual Maximum Precipitation Data

Argentia – Maximum Annual Precipitation (mm)

Year	5 min	10 min	15 min	30 min	1 hr	2 hr	6 hr	12 hr	24 hr
1980	8.3	14.7	17.0	17.0	17.0	19.0	34.8	41.0	46.2
1981	6.6	12.3	18.1	23.0	25.8	31.7	58.5	73.6	91.6
1982	4.6	7.9	10.7	15.8	20.5	34.0	61.3	69.4	69.4
1983	5.9	11.2	14.4	16.2	17.3	23.8	39.3	55.6	68.2
1984	4.7	8.0	9.0	10.1	10.4	20.2	39.4	51.0	53.0
1985	3.5	5.3	7.9	12.0	15.4	29.5	39.8	44.3	57.6
1986	3.1	4.8	7.2	11.3	15.0	16.7	30.4	44.5	66.4
2004	4.2	7.8	9.6	11.6	19.2	26.6	46.8	73.2	108.6
2005	3.8	6.6	8.4	14.8	21.2	25.2	33.2	42.8	52.6
2006	7.2	11.4	12.6	14.2	23.4	29.4	31.8	38.3	66.6
2007	5.2	10.4	15.6	24.0	38.0	61.0	150.8	200.4	204.8
2008	5.4	9.6	13.0	20.4	23.0	24.0	35.2	46.8	53.2
2009	3.0	5.4	7.0	11.2	16.4	24.4	34.4	42.0	43.4
2010	3.4	6.4	9.2	15.0	26.4	40.4	79.8	91.2	133.6
2011	4.6	8.8	12.4	18.6	21.6	32.4	46.0	54.6	54.6
2012	4.0	5.6	7.4	11.2	18.0	20.0	29.0	41.2	43.8
2013	3.0	5.6	7.2	10.8	16.4	22.0	35.0	45.2	56.4
2014			9.8	16.2	21.1	26.8	36.3	41.2	51.5
2015			8.4	14.1	17.0	26.1	33.1	35.1	41.4
2016			14.1	14.1	14.1	17.4	32.1	43.0	43.7

St. Johns – Maximum Annual Precipitation (mm)

Year	5 min	10 min	15 min	30 min	1 hr	2 hr	6 hr	12 hr	24 hr
1949	8.9	8.9	10.2	17.5	28.2	52.6	61.7	62.0	63.5
1961	3.0	4.3	5.3	6.9	8.6	13.5	25.7	35.6	38.6
1962	2.8	4.6	4.6	8.1	13.0	20.6	33.8	54.9	59.7
1963	10.2	11.2	11.7	13.7	18.5	23.6	40.9	52.3	57.9
1964	4.3	6.9	7.9	11.2	19.3	28.2	54.9	72.6	77.5
1965	5.3	7.4	9.9	13.0	17.8	19.6	32.3	51.8	59.7
1966	8.4	13.2	17.0	25.4	29.7	43.7	48.5	64.5	85.3
1967	2.3	3.8	5.3	9.9	10.9	16.3	29.5	44.4	58.4
1968	6.3	12.7	13.7	14.7	17.5	22.4	41.9	55.1	61.7
1969	5.6	7.1	8.4	8.6	11.7	19.0	30.7	34.5	48.3

1970	5.6	7.1	10.7	15.2	16.3	19.6	42.4	62.5	87.4
1971	6.3	10.4	14.5	16.0	19.0	22.1	34.3	41.1	77.7
1972	4.8	5.3	6.6	10.9	15.0	20.6	47.8	72.6	89.2
1973	5.3	6.9	7.9	10.4	16.5	30.0	49.5	65.8	67.1
1974	3.6	5.6	6.3	9.9	16.3	22.4	42.4	53.3	72.9
1975	8.1	10.4	12.2	17.8	19.0	19.6	46.5	71.9	82.3
1976	3.6	4.8	6.1	8.4	12.7	19.0	33.8	42.2	53.6
1977	3.8	5.6	7.6	11.7	17.5	23.4	38.6	40.4	41.4
1978	4.0	5.9	7.4	7.6	12.9	13.1	27.1	37.6	43.0
1979	3.2	4.2	5.9	10.2	16.2	18.1	29.3	41.9	49.2
1980	3.2	6.1	7.4	12.2	17.4	23.9	33.6	41.6	69.8
1981					15.0	22.4	46.7	72.5	82.6
1982	5.1	9.0	12.9	17.1	24.5	35.9	80.3	82.4	84.0
1983	1.6	3.2	4.8	9.6	19.2	26.5	47.3	52.8	54.7
1984	5.0	9.9	13.0	21.5	27.1	36.6	61.0	74.0	75.3
1985	5.2	7.1	9.8	11.3	14.1	18.5	36.0	54.9	82.9
1986	3.1	4.8	7.2	14.3	23.3	27.9	40.2	58.9	70.6
1987	5.1	7.3	8.6	16.2	23.5	24.2	30.6	36.6	46.8
1988	6.6	10.6	13.2	17.4	23.4	25.9	44.8	45.8	49.0
1989	2.9	4.5	6.2	8.0	10.9	19.7	43.4	51.6	51.6
1990	3.7	5.9	6.5	12.6	19.2	28.5	48.1	68.7	85.2
1991	7.8	11.4	15.9	23.3	28.8	29.5	51.2	52.2	59.7
1993	4.4	7.0	7.6	11.5	20.0	31.3	47.6	49.4	55.3
1994	6.2	9.1	10.3	12.6	12.8	14.9			67.5
1995	5.2	9.8	14.5	16.6	27.6	46.7	55.9	58.8	61.6
1996	4.8	6.2	7.4	10.2	15.4	27.2	40.2	44.0	48.4
1999	3.2	5.0	6.6	9.0	15.3	25.1	42.4	63.4	99.3
2000	3.8	6.7	8.6	13.0	21.5	29.9	43.4	58.9	70.5
2001	4.8	8.8	11.5	19.5	33.7	62.0	107.1	147.7	149.6
2003	5.5	8.6	11.3	19.3	32.4	42.2	50.4	76.1	92.4
2004	3.9	7.4	10.6	17.2	23.6	26.1	59.0	71.5	76.6
2005	5.0	7.1	8.4	13.1	21.2	28.6	65.4	82.3	98.9
2006	4.8	8.1	11.1	17.5	30.4	36.4	51.9	53.7	58.5
2007	6.3	10.3	14.6	27.2	41.1	48.1	79.2	104.2	104.9
2009	5.0	6.6	7.4	10.6	16.9	24.7	46.7	58.2	65.0
2010	4.1	7.5	10.2	14.2	21.2	36.2	62.7	75.0	113.8
2011	3.2	4.8	7.3	12.0	15.7	20.6	33.3	38.1	54.9

2013	4.4	6.6	8.5	11.3	15.9	27.2	46.3	56.1	76.3
2014			9.8	15.7	20.6	39.4	49.6	50.1	61.2
2015			6.2	7.7	9.6	14.3	25.9	39.4	66.6
2016			7.6	9.4	13.2	20.4	34.2	51.0	54.5
2017			9.9	13.5	17.5	24.1	33.0	35.2	46.9
2018			10.6	20.9	29.3	43.8	50.9	60.8	74.0
2019			5.1	7.5	12.1	19.1	32.4	40.0	64.7
2020			6.4	11.3	14.1	27.9	51.7	56.5	60.1
2021			17.9	30.1	31.3	36.2	48.4	55.5	57.1

Rubylane – Maximum Annual Precipitation (mm)

Year	5 min	10 min	15 min	30 min	1 hr	2 hr	6 hr	12 hr	24 hr
1997	4.7	4.9	6.2	8.0	12.2	21.9	46.1	61.4	68.3
1998	3.6	5.8	6.8	11.9	21.3	33.0	56.0	76.0	95.8
1999	4.0	5.8	6.7	9.4	15.3	25.4	37.1	55.4	83.2
2000	3.5	5.5	7.8	14.2	20.3	30.8	48.1	62.0	73.1
2001	5.1	8.6	11.0	18.6	32.6	55.5	95.9	133.1	135.9
2002	3.5	6.7	9.5	13.2	16.1	26.4	44.0	45.0	46.3
2004	4.1	7.4	9.6	13.1	22.5	22.6	43.8	55.2	58.7
2005	3.7	7.2	10.5	14.4	22.2	35.2	43.0	62.9	77.4
2006	2.8	5.1	6.4	8.6	12.2	19.0	36.3	42.5	53.5
2007	7.2	11.1	15.1	27.1	41.7	56.4	76.4	91.0	91.9
2008	5.0	8.0	8.3	11.4	15.6	23.2	45.9	57.8	63.1
2009	4.3	5.9	7.8	10.3	16.0	26.5	49.6	74.6	75.1
2010	5.7	7.2	8.4	11.4	21.4	34.9	56.3	65.3	111.2
2011	4.3	6.4	6.8	10.2	14.6	23.8	37.4	44.9	72.0
2013	3.6	7.0	8.4	10.3	12.8	21.9	37.1	47.7	55.5
2014	4.2	6.5	8.7	12.5	21.0	36.3	45.9	51.2	64.0
2015			6.2	7.7	9.6	14.3	25.9	39.4	66.6
2016			7.6	9.4	13.2	20.4	34.2	51.0	54.5
2017			9.9	13.5	17.5	24.1	33.0	35.2	46.9
2018			10.6	20.9	29.3	43.8	50.9	60.8	74.0
2019			5.1	7.5	12.1	19.1	32.4	40.0	64.7
2020			6.4	11.3	14.1	27.9	51.7	56.5	60.1
2021			17.9	30.1	31.3	36.2	48.4	55.5	57.1

APPENDIX H

IDF Curve Data

Argentina– IDF Curve

Duration (Minutes)	Return Period (Years)						
	2	5	10	20	25	50	100
5	54.0	69.6	80.4	90.0	94.8	104.4	115.2
10	47.4	62.4	72.6	81.0	85.2	94.8	104.4
15	41.6	53.6	62.0	69.6	72.0	79.6	87.2
30	28.8	35.8	40.6	45.0	46.4	50.8	55.2
60	18.9	24.1	27.5	30.8	31.8	35.1	38.3
120	13.0	17.3	20.2	23.0	23.9	26.6	29.3
360	7.0	11.0	13.7	16.3	17.2	19.7	22.2
720	4.4	7.1	8.8	10.6	11.1	12.8	14.4
1440	2.7	4.1	5.1	6.0	6.3	7.2	8.1

Argentina– IDF Curve CLC

Duration (Minutes)	Return Period (Years)						
	2	5	10	20	25	50	100
5	62.4	79.2	91.2	100.8	105.6	116.4	127.2
10	54.6	70.8	81.6	90.8	95.4	105.6	115.8
15	47.2	53.6	70.4	77.9	81.6	90.4	98.8
30	31.8	35.8	45.2	49.7	52.0	57.0	62.2
60	21.1	24.1	30.6	33.8	35.4	39.0	42.5
120	14.7	17.3	22.6	25.2	26.6	29.6	32.5
360	8.8	11.0	16.4	18.9	20.2	23.1	25.9
720	5.8	7.1	10.8	12.5	13.4	15.2	17.1
1440	3.4	4.1	5.9	6.8	7.2	8.1	9.1

St.Johns– IDF Curve

Duration (Minutes)	Return Period (Years)						
	2	5	10	20	25	50	100
5	55.2	73.2	86.4	96.8	102.0	112.8	124.8
10	42.0	54.6	63.0	70.2	73.8	81.6	89.4
15	35.5	47.2	54.8	62.0	64.4	71.6	78.8
30	26.2	35.2	41.4	47.2	49.0	54.8	60.4
60	18.5	24.6	28.7	32.6	33.8	37.6	41.4
120	12.9	17.4	20.4	23.3	24.2	27.0	29.8
360	7.2	9.4	10.8	12.2	12.6	14.0	15.3
720	4.6	6.0	6.9	7.8	8.1	8.9	9.8
1440	2.8	3.5	4.0	4.4	4.6	5.0	5.5

Rubylane – IDF Curve

Duration (Minutes)	Return Period (Years)						
	2	5	10	20	25	50	100
5	50.4	61.2	68.4	74.4	78.0	85.2	91.2
10	39.6	47.4	52.8	57.0	59.4	64.8	69.6
15	33.1	43.6	50.5	57.1	59.2	65.6	72.0
30	24.6	34.9	41.7	48.3	50.4	56.7	63.1
60	18.0	25.0	29.7	34.1	35.5	39.9	44.2
120	13.9	18.7	21.9	24.9	25.9	28.9	31.8
360	7.4	9.6	11.0	12.4	12.9	14.3	15.6
720	4.7	6.2	7.2	8.2	8.5	9.4	10.3
1440	2.8	3.6	4.1	4.6	4.8	5.3	5.7

Rubylane – IDF Curve CLC

Duration (Minutes)	Return Period (Years)						
	2	5	10	20	25	50	100
5	73.2	97.2	112.8	126.4	133.2	148.8	163.2
10	54.6	71.4	82.8	92.4	97.2	108.0	118.8
15	46.0	60.4	70.0	78.3	82.4	91.2	100.4
30	33.4	43.6	50.4	56.1	59.0	65.4	71.8
60	24.1	31.5	36.5	40.6	42.7	47.4	52.0
120	16.7	21.9	25.4	28.3	29.7	33.0	36.2
360	9.2	11.7	13.4	14.8	15.5	17.1	18.7
720	5.8	7.4	8.5	9.4	9.8	10.8	11.8
1440	3.5	4.4	5.0	5.6	5.8	6.4	7.0

APPENDIX I

EVA Analysis Results

Placentia Total Water Levels

FIGURE G.1: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 01, PLACENTIA BAY MODEL

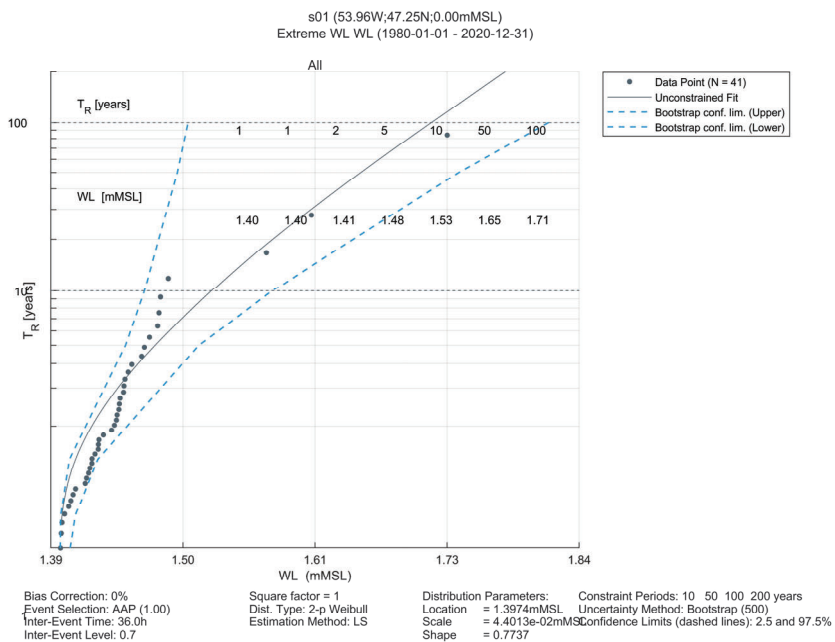


FIGURE G.2: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 02, PLACENTIA BAY MODEL

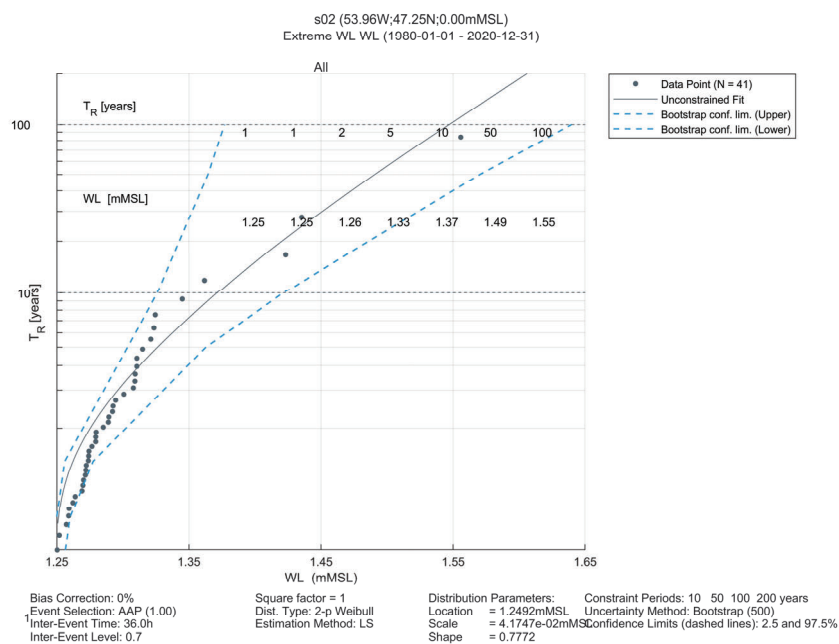


FIGURE G.3: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 03, PLACENTIA BAY MODEL

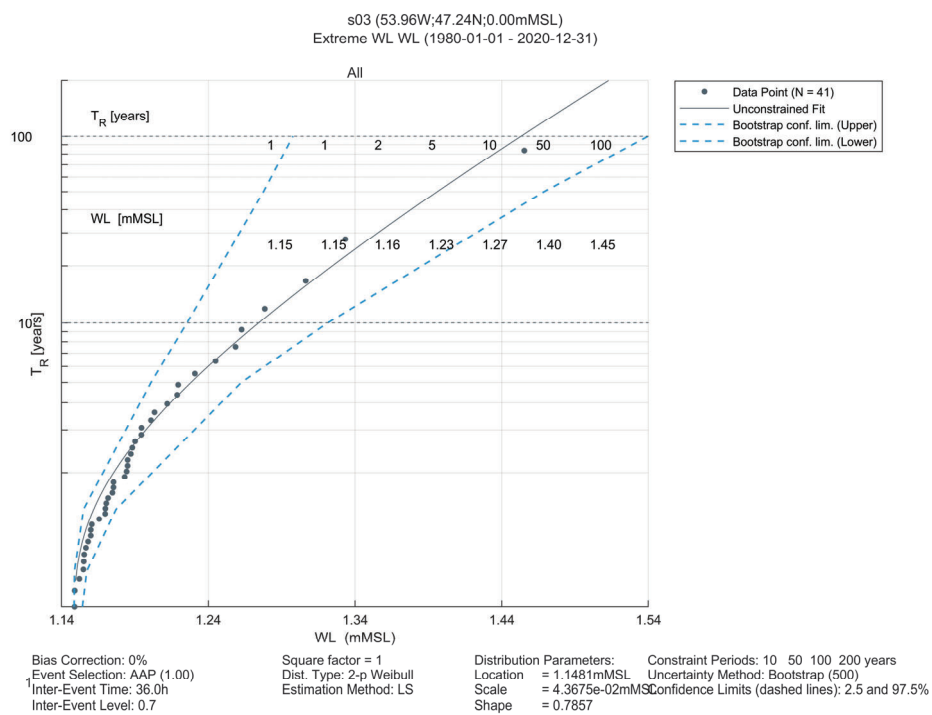


FIGURE G.4: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 04, PLACENTIA BAY MODEL

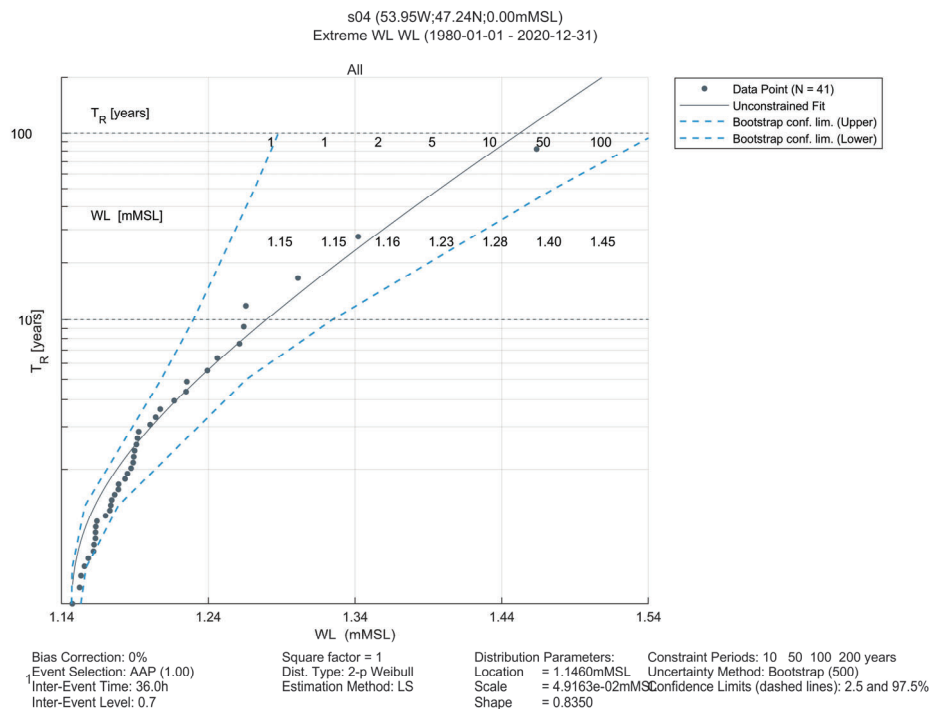


FIGURE G.5: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 05, PLACENTIA BAY MODEL

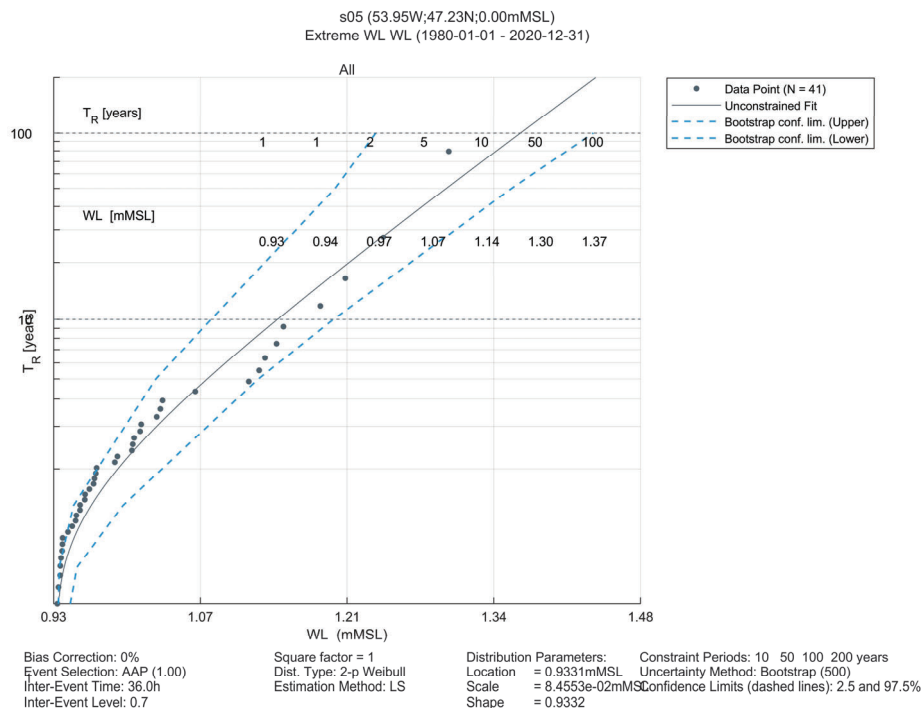


FIGURE G.6: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 06, PLACENTIA BAY MODEL

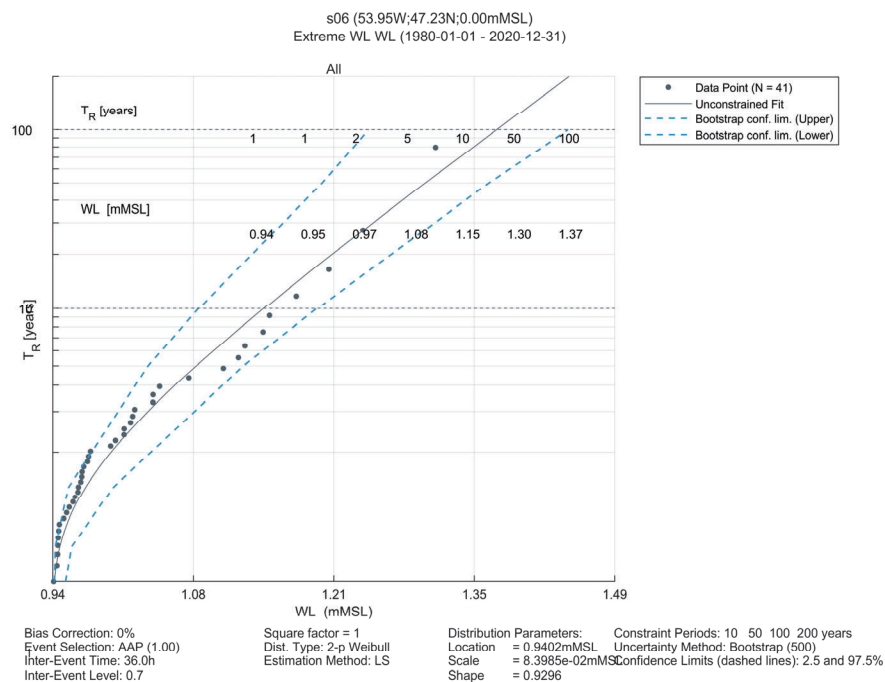


FIGURE G.7: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 07, PLACENTIA BAY MODEL

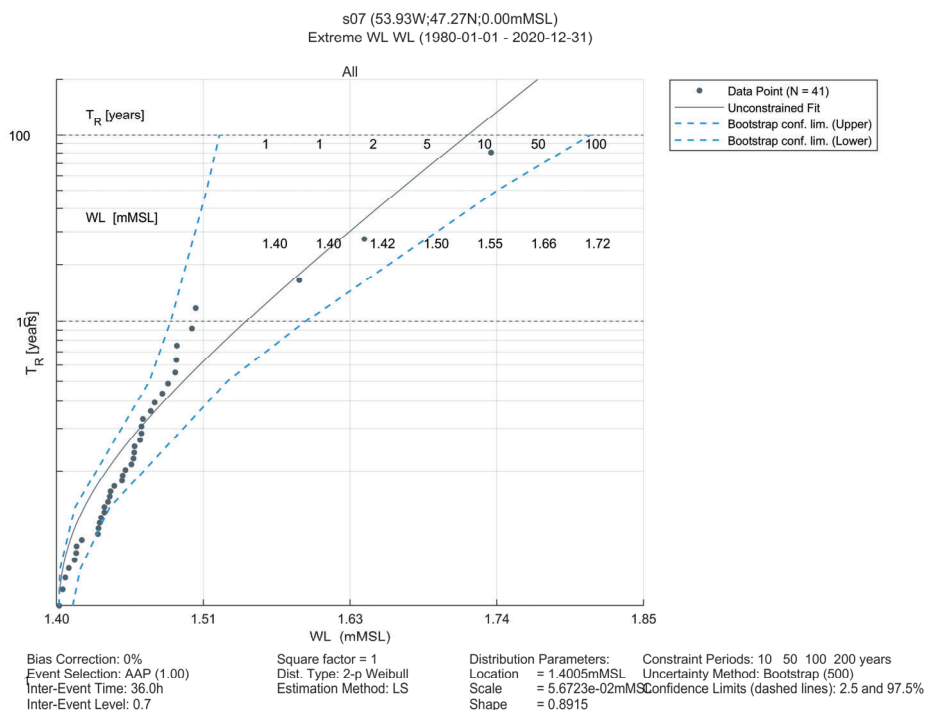


FIGURE G.8: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 08, PLACENTIA BAY MODEL

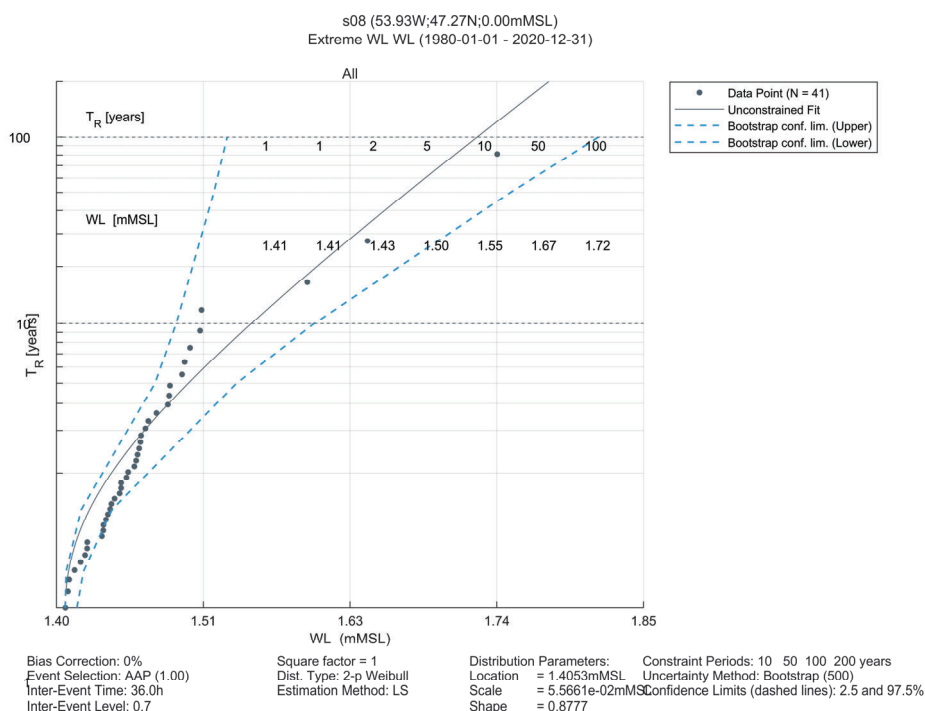


FIGURE G.9: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 09, PLACENTIA BAY MODEL

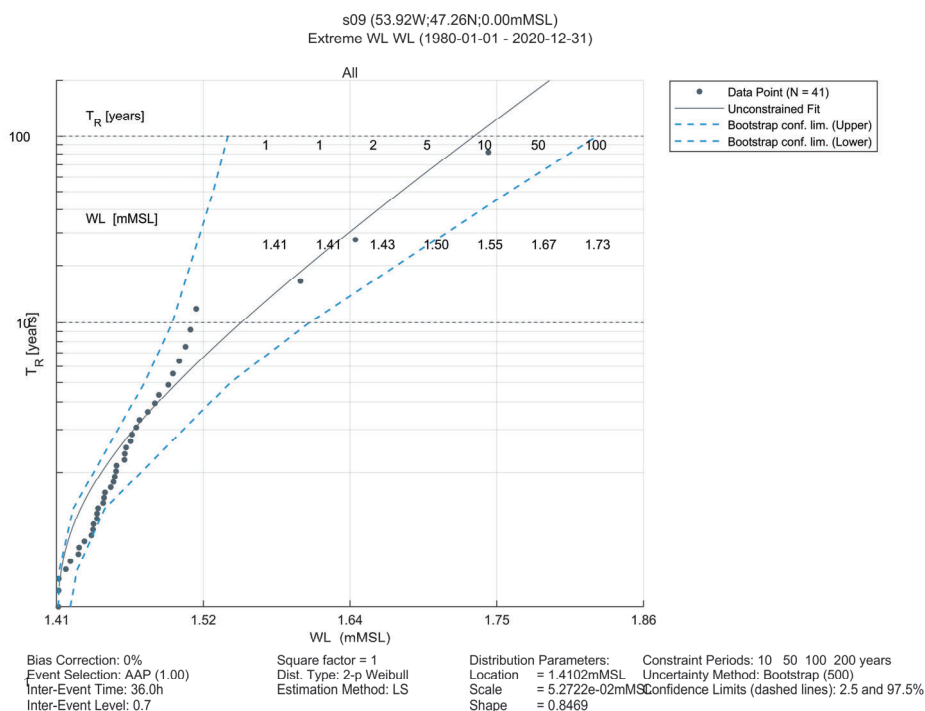


FIGURE G.10: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 10, PLACENTIA BAY MODEL

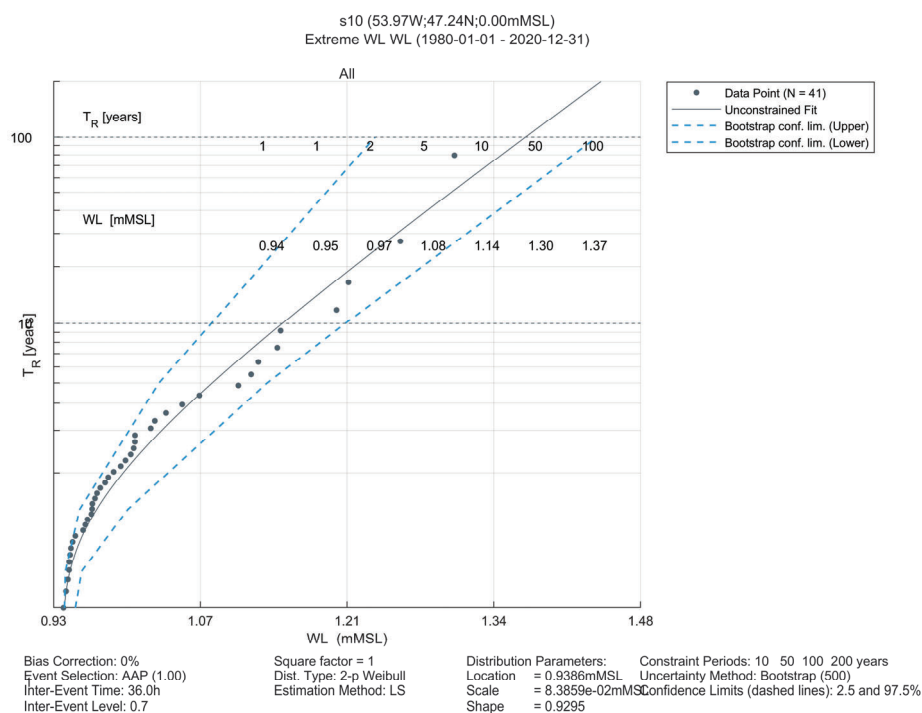


FIGURE G.11: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 11, PLACENTIA BAY MODEL

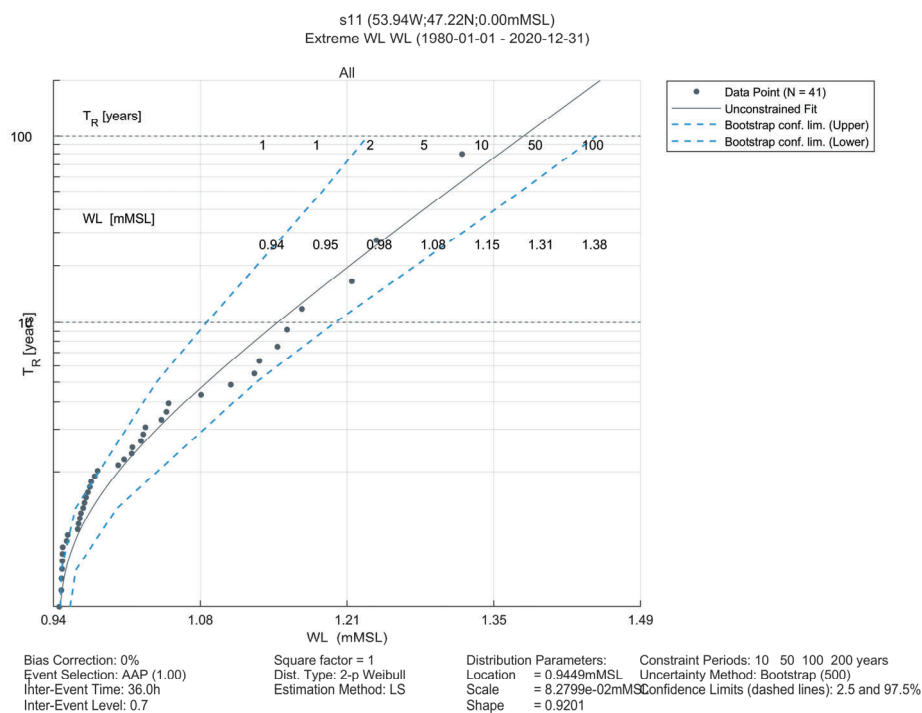


FIGURE G.12: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 12, PLACENTIA BAY MODEL

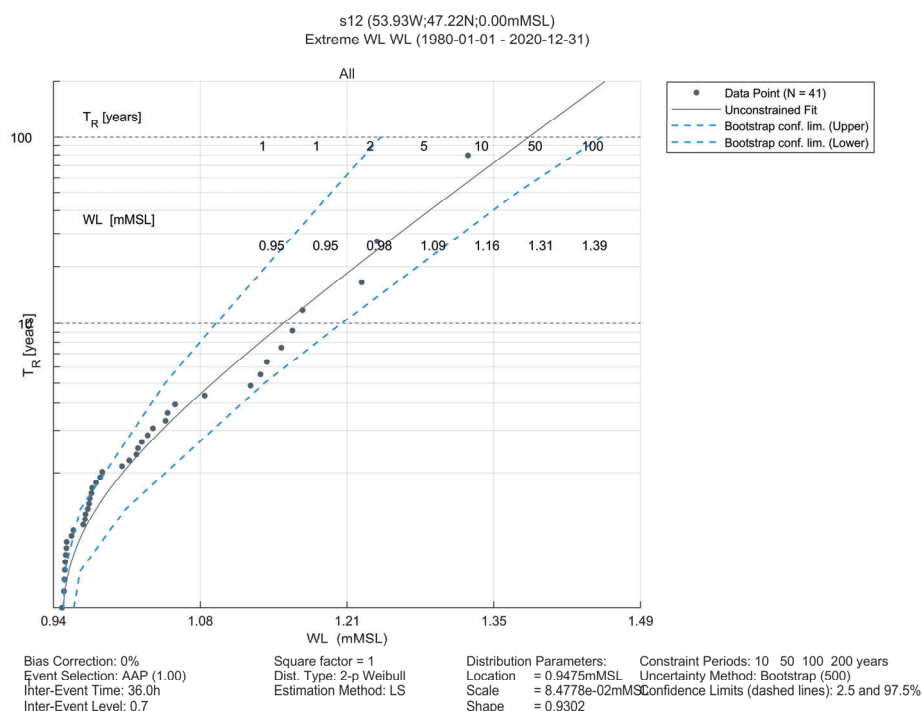


FIGURE G.13: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 13, PLACENTIA BAY MODEL

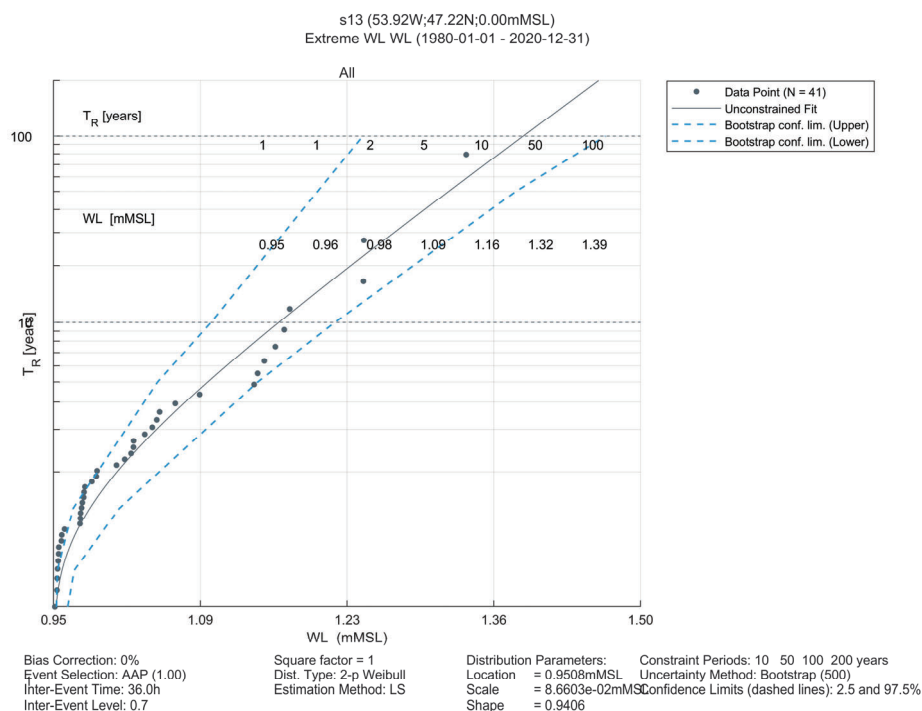


FIGURE G.14: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 14, PLACENTIA BAY MODEL

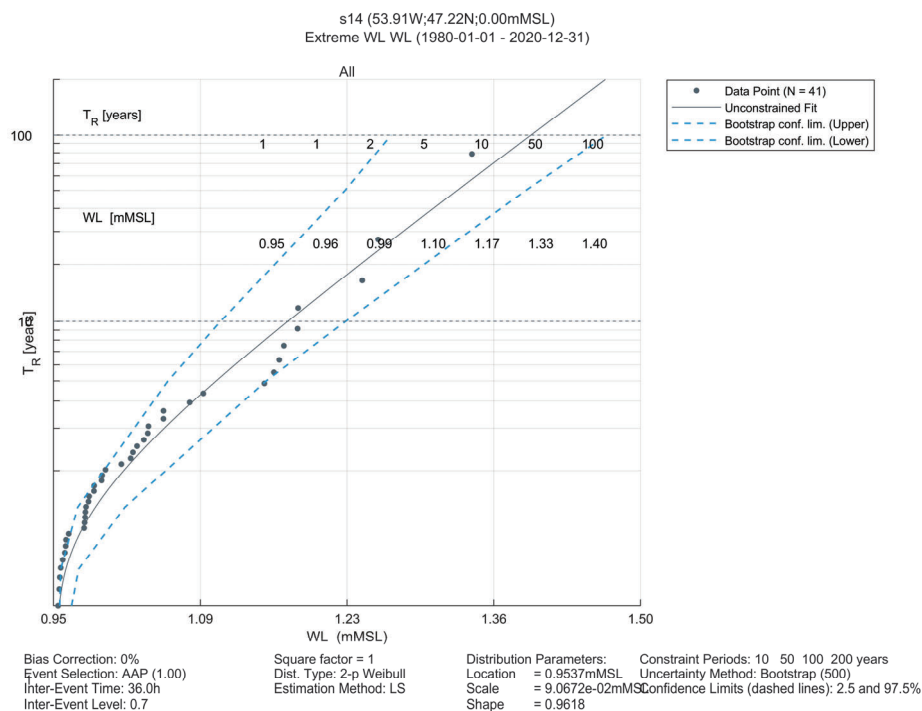


FIGURE G.15: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 15, PLACENTIA BAY MODEL

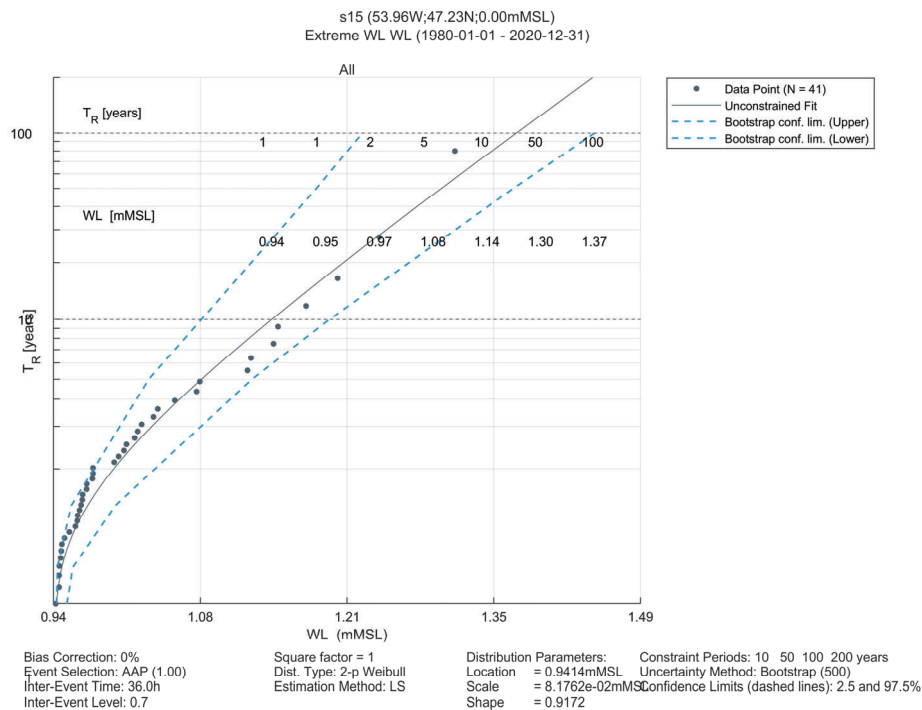


FIGURE G.16: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 16, PLACENTIA BAY MODEL

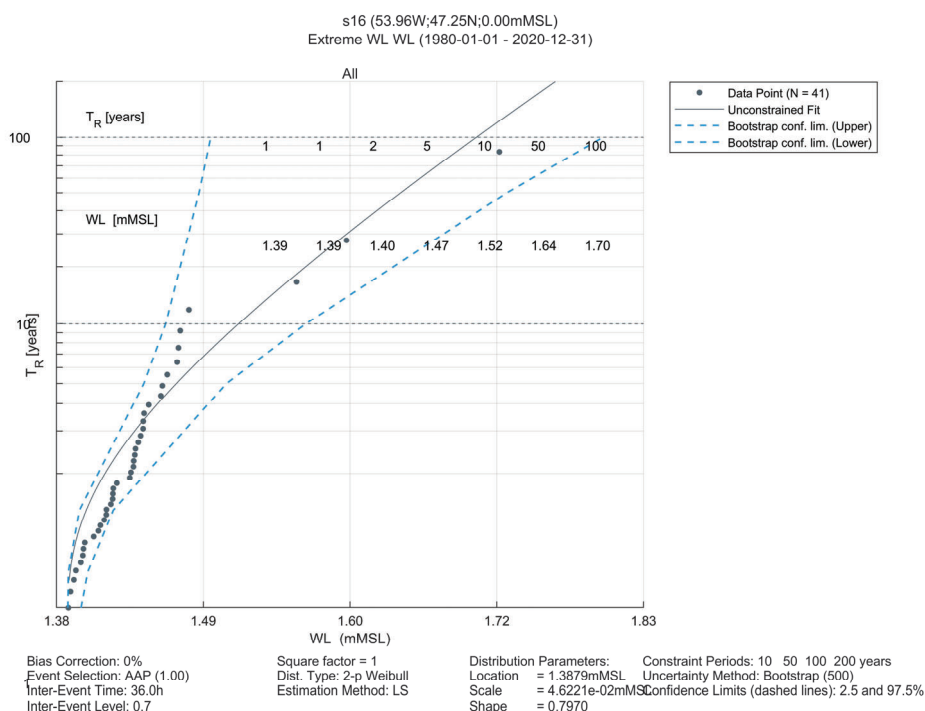


FIGURE G.17: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 17, PLACENTIA BAY MODEL

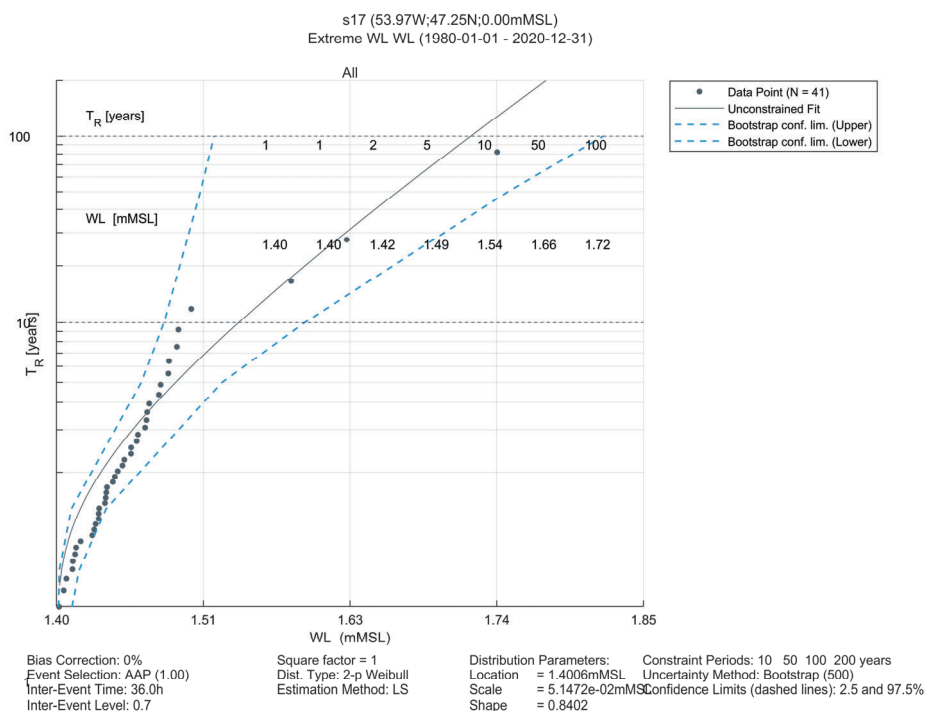


FIGURE G.18: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 18, PLACENTIA BAY MODEL

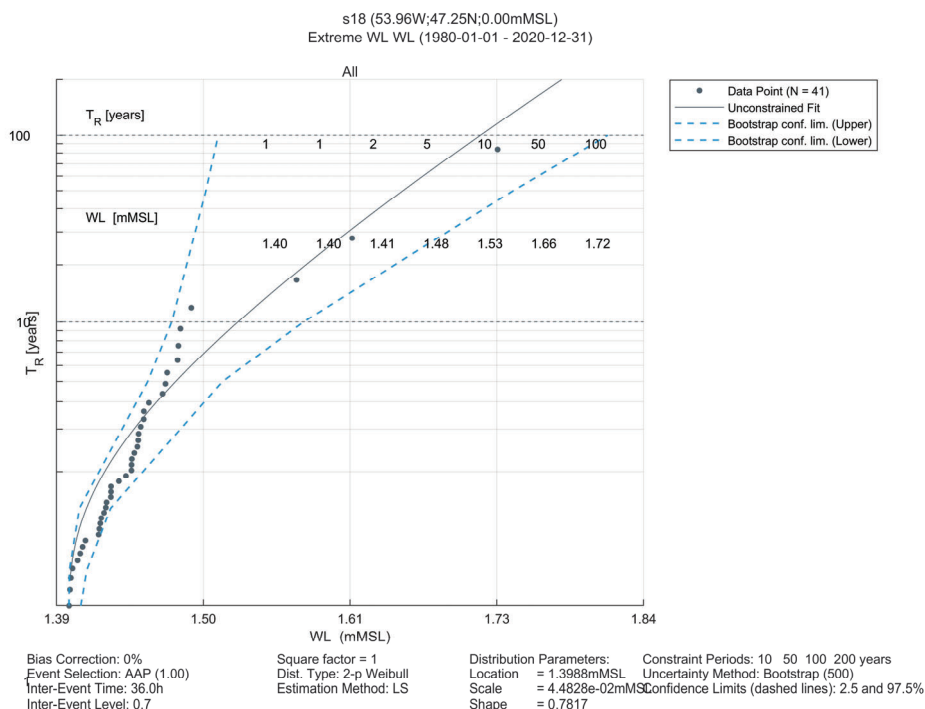


FIGURE G.19: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 19, PLACENTIA BAY MODEL

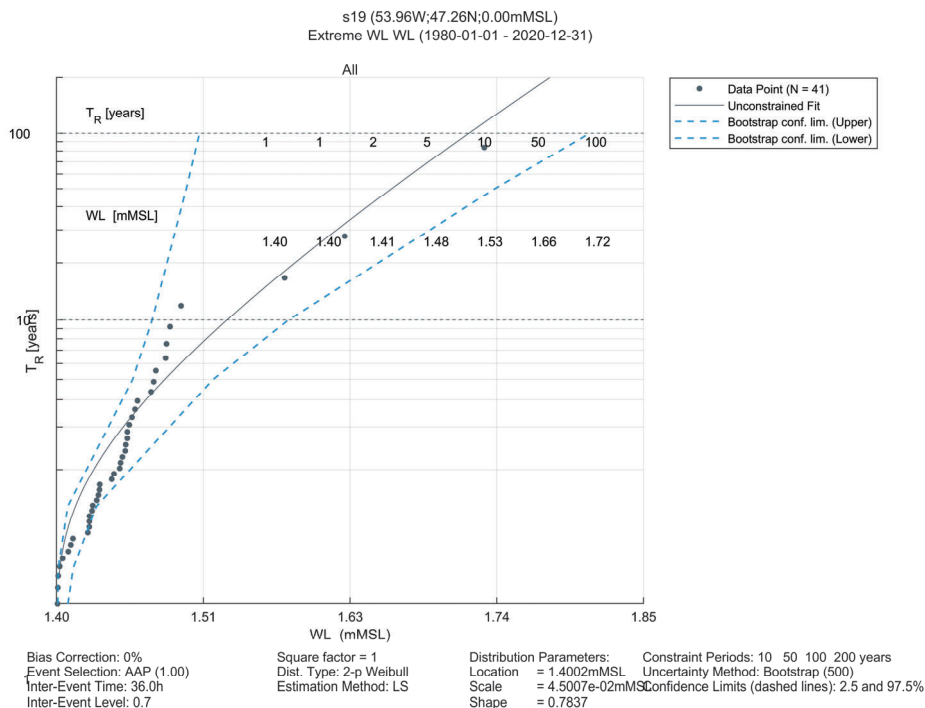


FIGURE G.20: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 20, PLACENTIA BAY MODEL

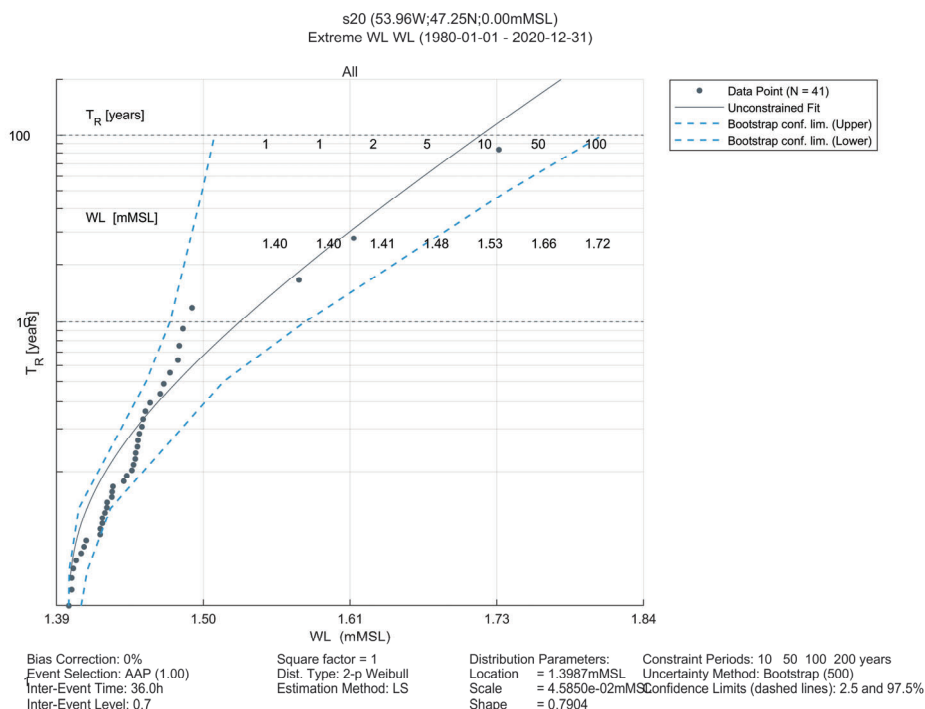


FIGURE G.21: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 21, PLACENTIA BAY MODEL

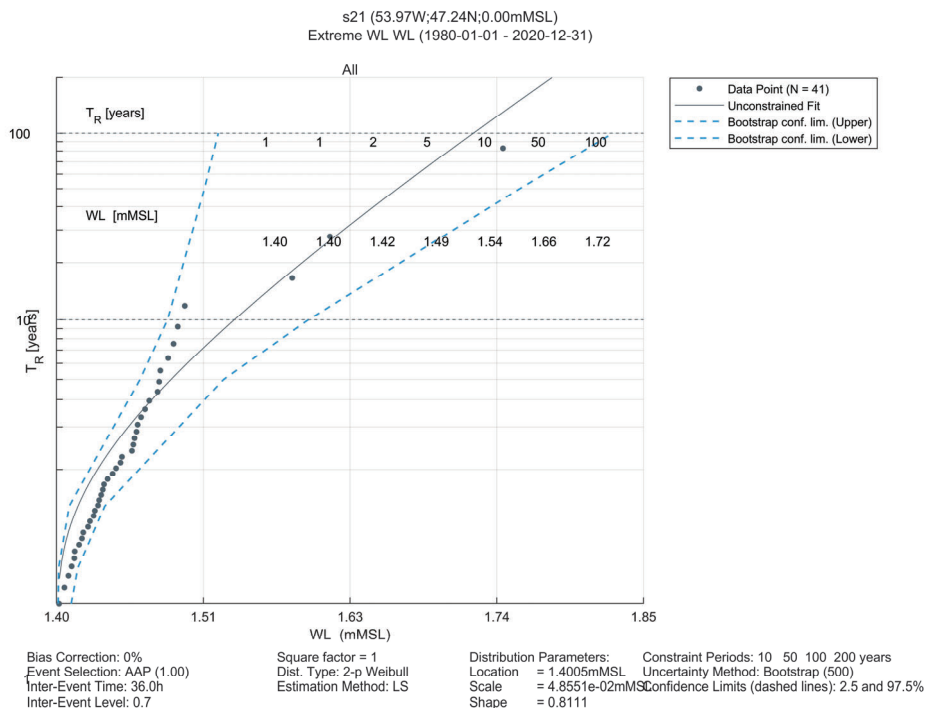


FIGURE G.22: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 22, PLACENTIA BAY MODEL

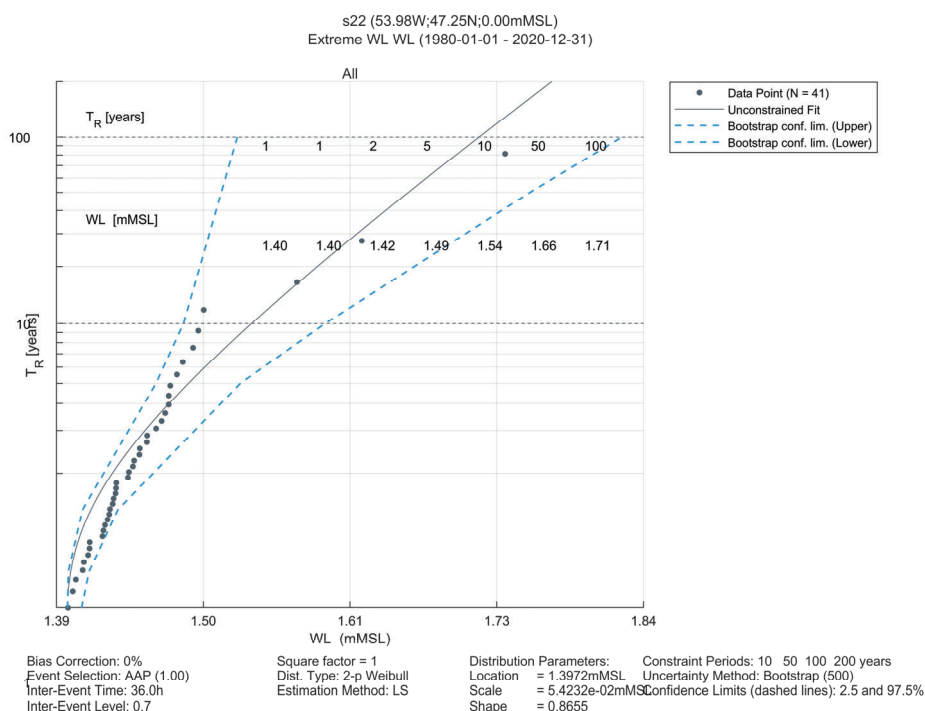


FIGURE G.23: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 23, PLACENTIA BAY MODEL

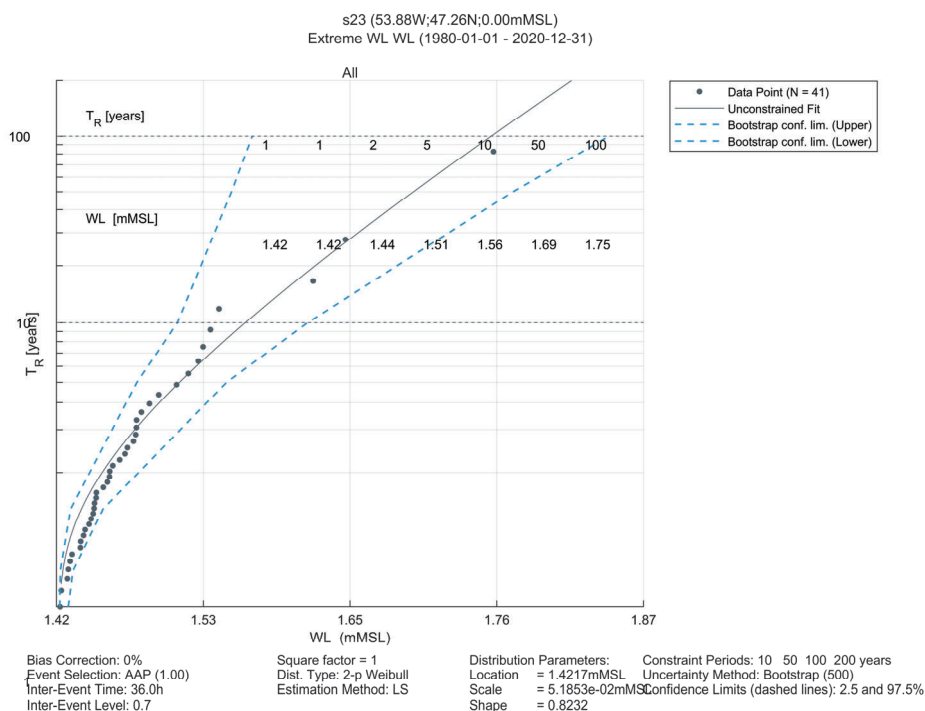


FIGURE G.24: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 24, PLACENTIA BAY MODEL

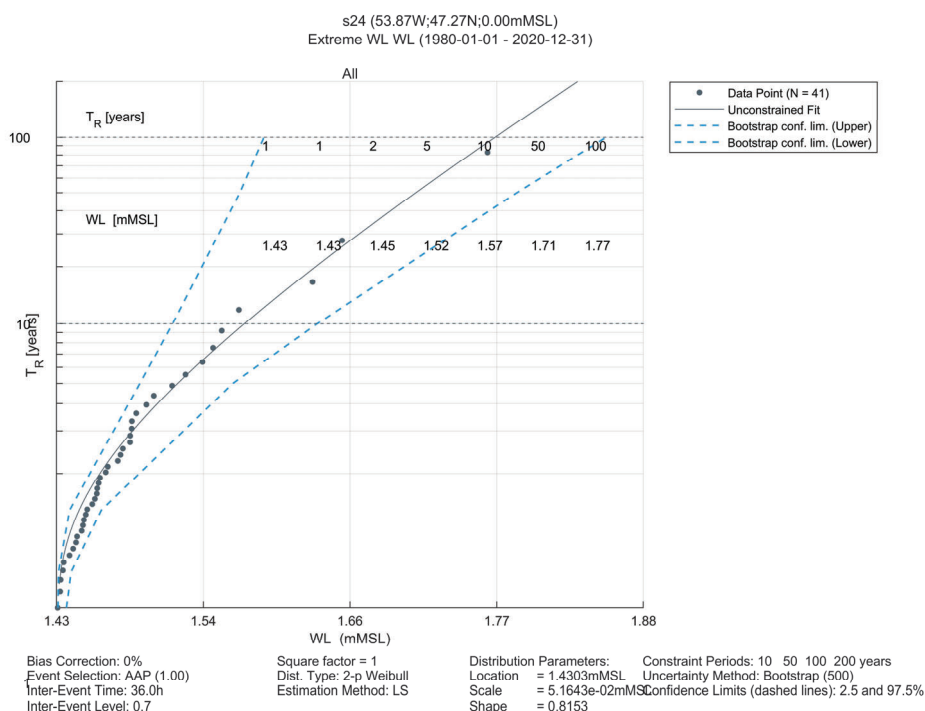


FIGURE G.25: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 25, PLACENTIA BAY MODEL

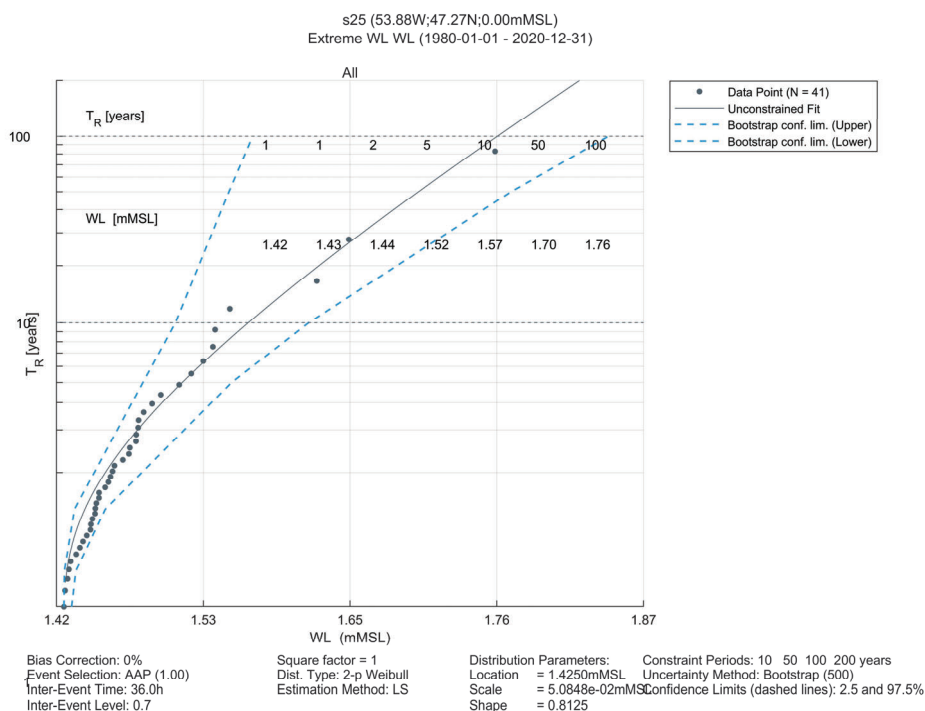


FIGURE G.26: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 26, PLACENTIA BAY MODEL

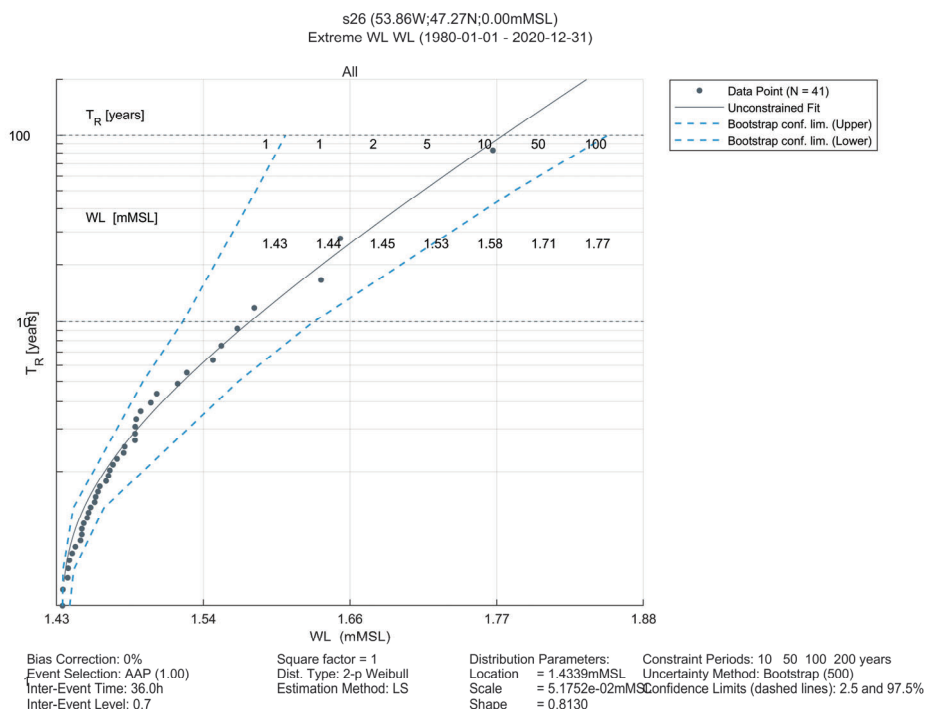
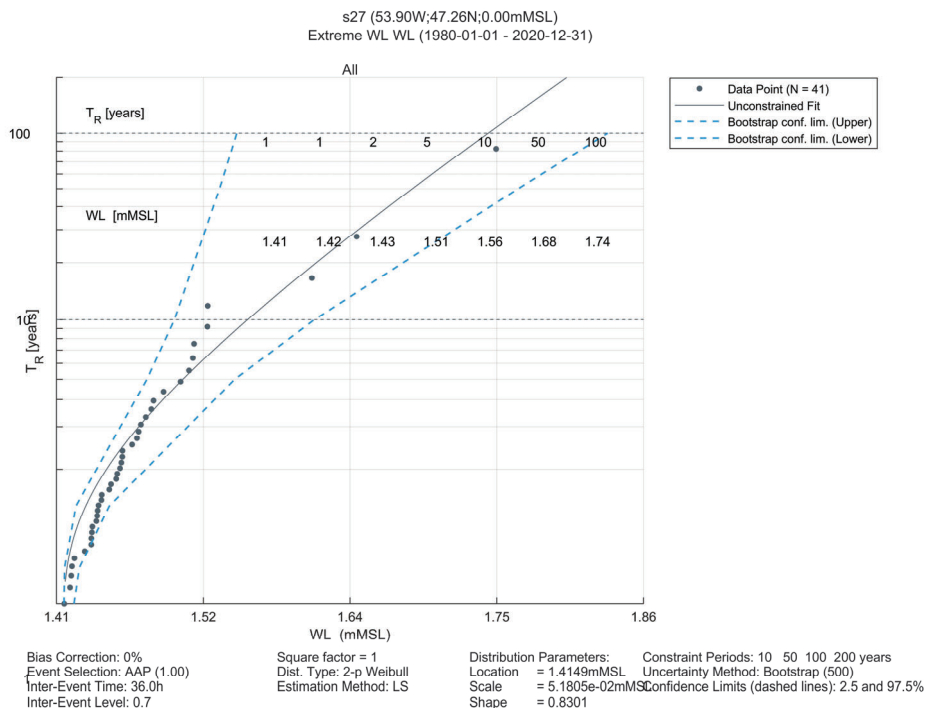


FIGURE G.27: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 27, PLACENTIA BAY MODEL



s28 (53.84W;47.27N;0.00mMSL)
Extreme WL WL (1980-01-01 - 2020-12-31)

All

T_R [years]

WL [mMSL]

T_R [years]

10 100

1 1 2 5 10 50 100

1.43 1.54 1.65 1.77 1.88

1.44 1.44 1.46 1.53 1.59 1.72 1.78

• Data Point (N = 41)
— Unconstrained Fit
- - - Bootstrap conf. lim. (Upper)
- - - Bootstrap conf. lim. (Lower)

Bias Correction: 0%
Event Selection: AAP (1.00)
Inter-Event Time: 36.0h
Inter-Event Level: 0.7

Square factor = 1
Dist. Type: 2-p Weibull
Estimation Method: LS

Distribution Parameters:
Location = 1.4363mMSL
Scale = 5.5326e-02mMSL
Shape = 0.8316

Constraint Periods: 10 50 100 200 years
Uncertainty Method: Bootstrap (500)
Confidence Limits (dashed lines): 2.5 and 97.5%

s29 (53.99W;47.29N;0.00mMSL)
Extreme WL WL (1980-01-01 - 2020-12-31)

All

T_R [years]

WL [mMSL]

T_R [years]

WL (mMSL)

Legend:

- Data Point (N = 41)
- Unconstrained Fit
- - - Bootstrap conf. lim. (Upper)
- - - Bootstrap conf. lim. (Lower)

Bias Correction: 0%
Event Selection: AAP (1.00)
Inter-Event Time: 36.0h
Inter-Event Level: 0.7

Square factor = 1
Dist. Type: 2-p Weibull
Estimation Method: LS

Distribution Parameters:
Location = 1.4047mMSL
Scale = 5.9061e-02mMSL
Shape = 0.9138

Constraint Periods: 10 50 100 200 years
Uncertainty Method: Bootstrap (500)
Confidence Limits (dashed lines): 2.5 and 97.5%

FIGURE G.30: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 30, PLACENTIA BAY MODEL

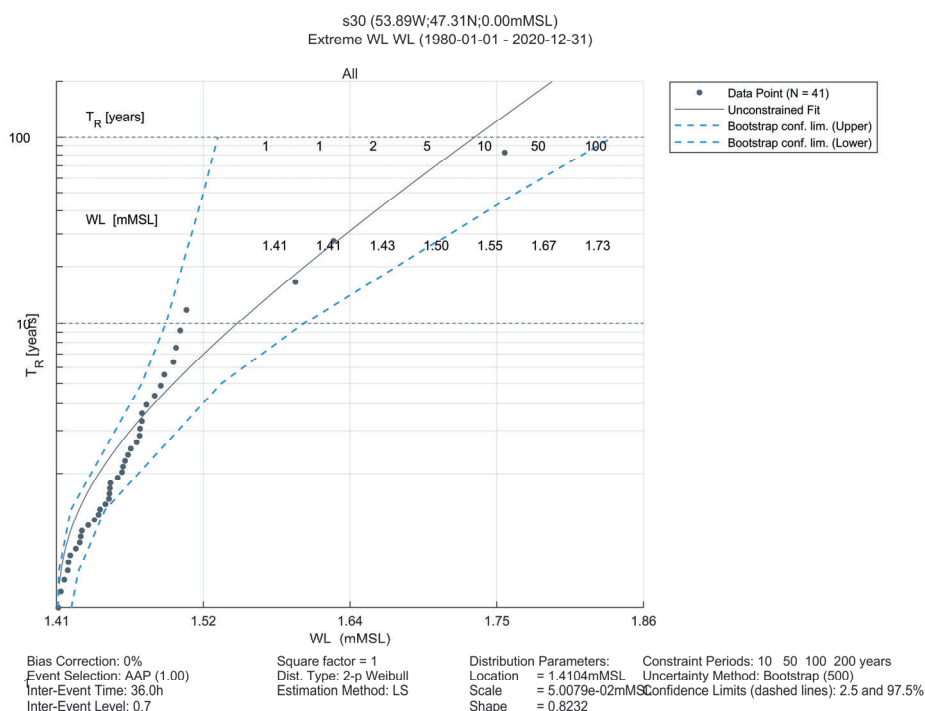
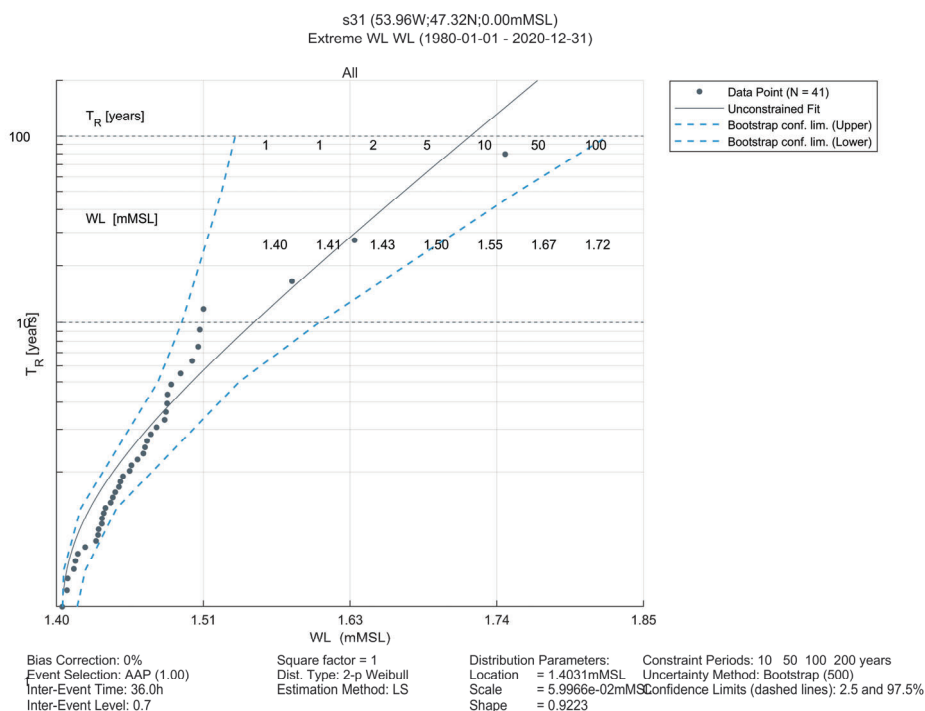


FIGURE G.31: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 31, PLACENTIA BAY MODEL



Government of Newfoundland and Labrador
Climate Change Flood Risk Mapping Study for Placentia, Carbonear, Victoria and Salmon Cove – Appendix I

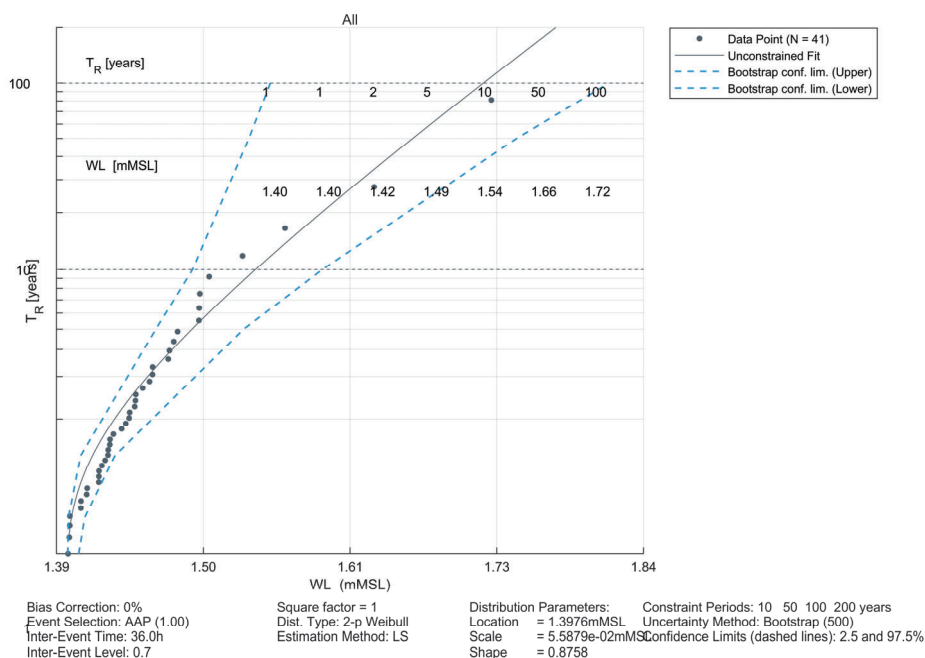
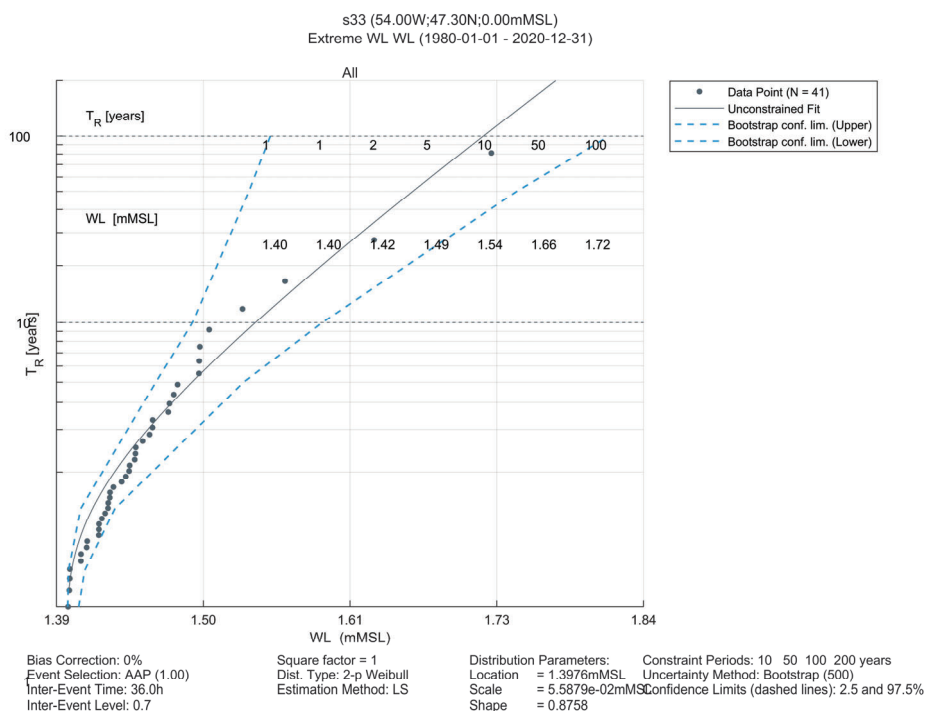
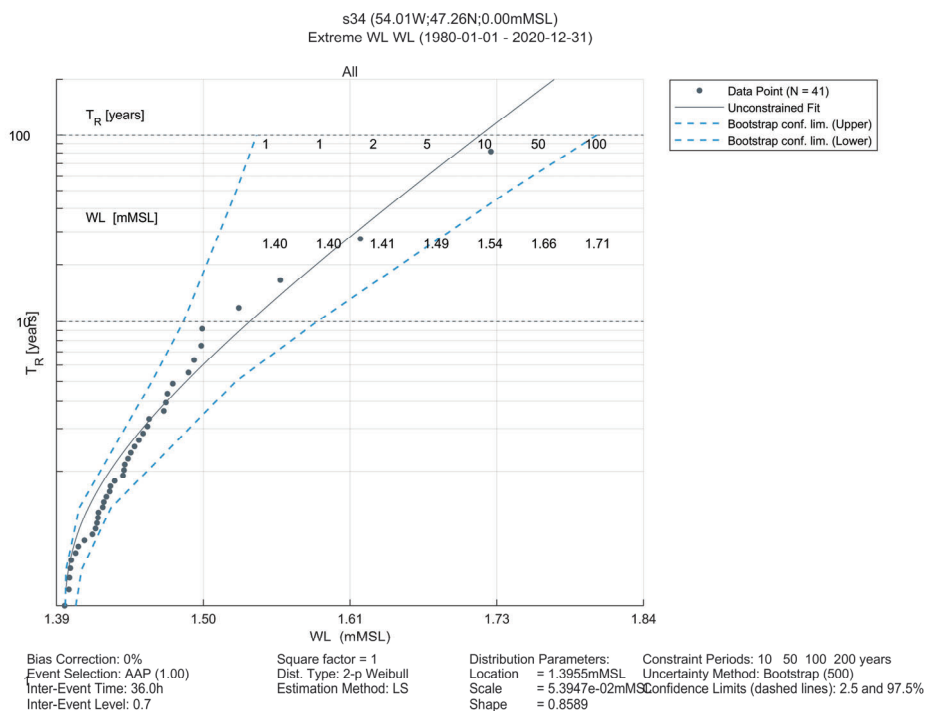


FIGURE G.34: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 34, PLACENTIA BAY MODEL



Placentia Current Magnitudes

FIGURE G.35: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 01, PLACENTIA BAY MODEL

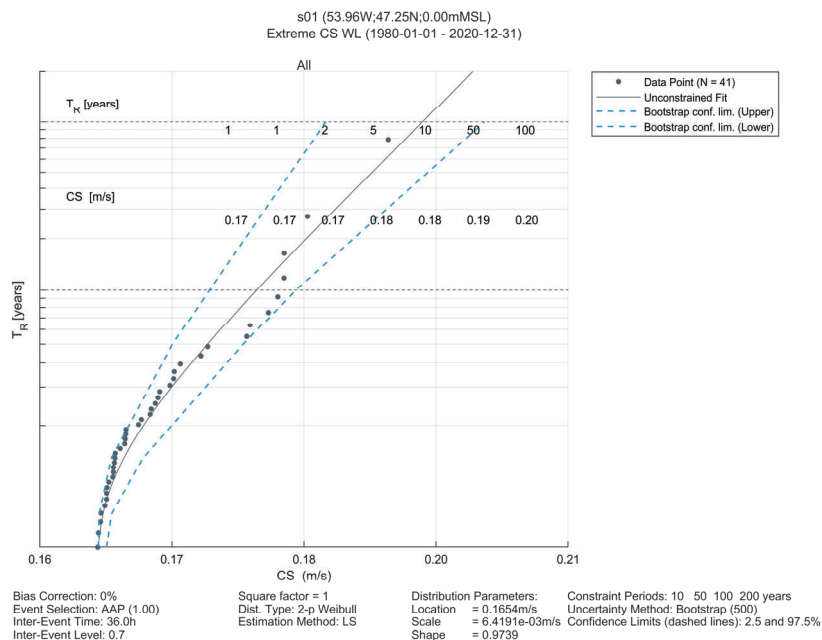


FIGURE G.36: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 02, PLACENTIA BAY MODEL

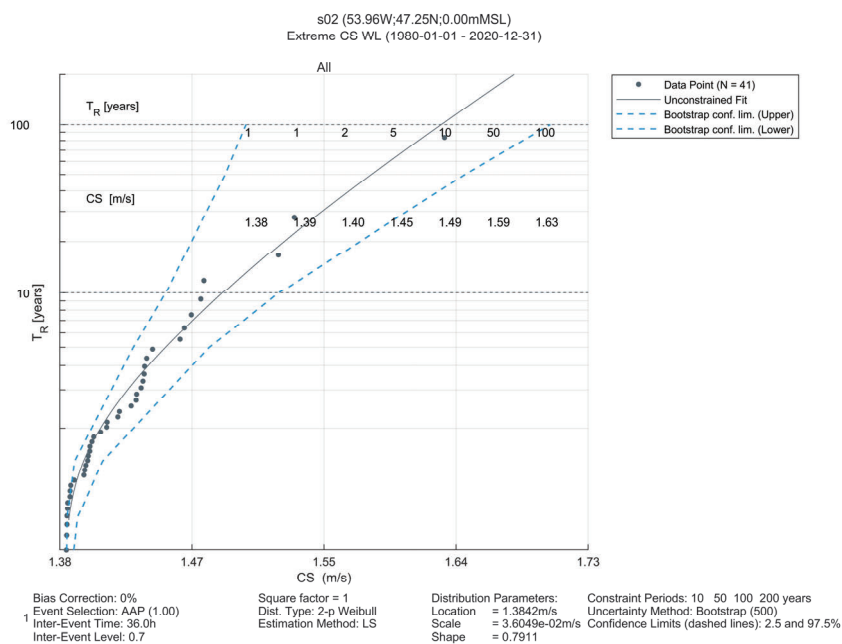


FIGURE G.37: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 03, PLACENTIA BAY MODEL

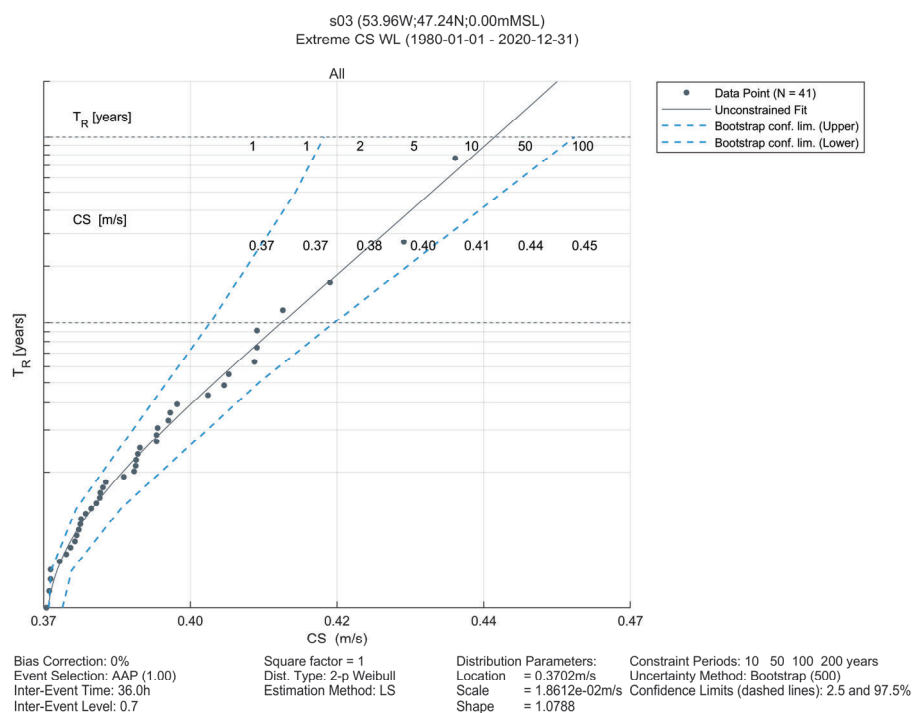


FIGURE G.38: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 04, PLACENTIA BAY MODEL

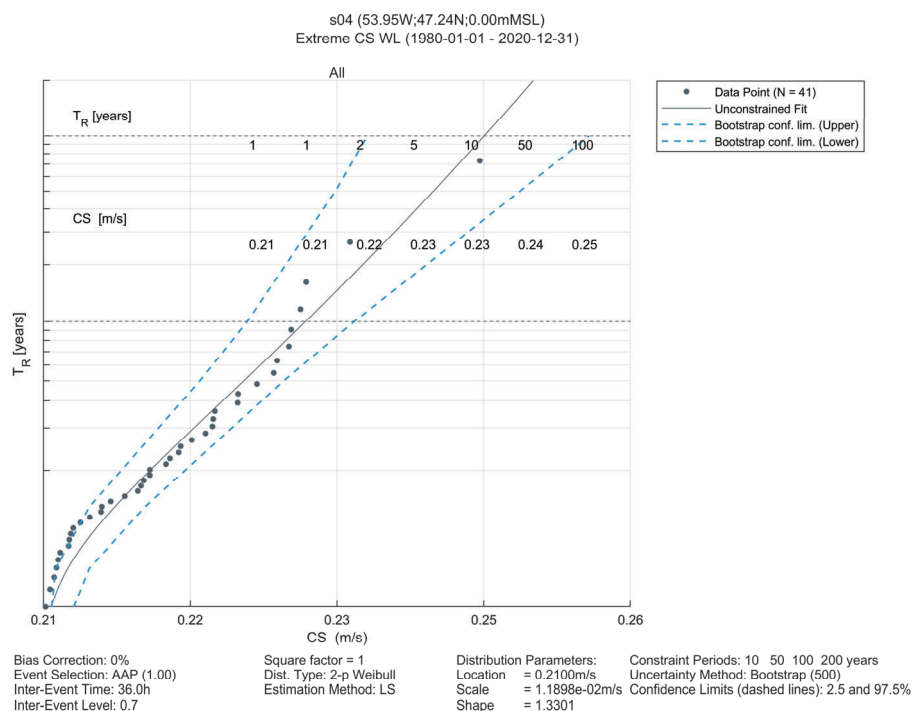


FIGURE G.39: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 05, PLACENTIA BAY MODEL

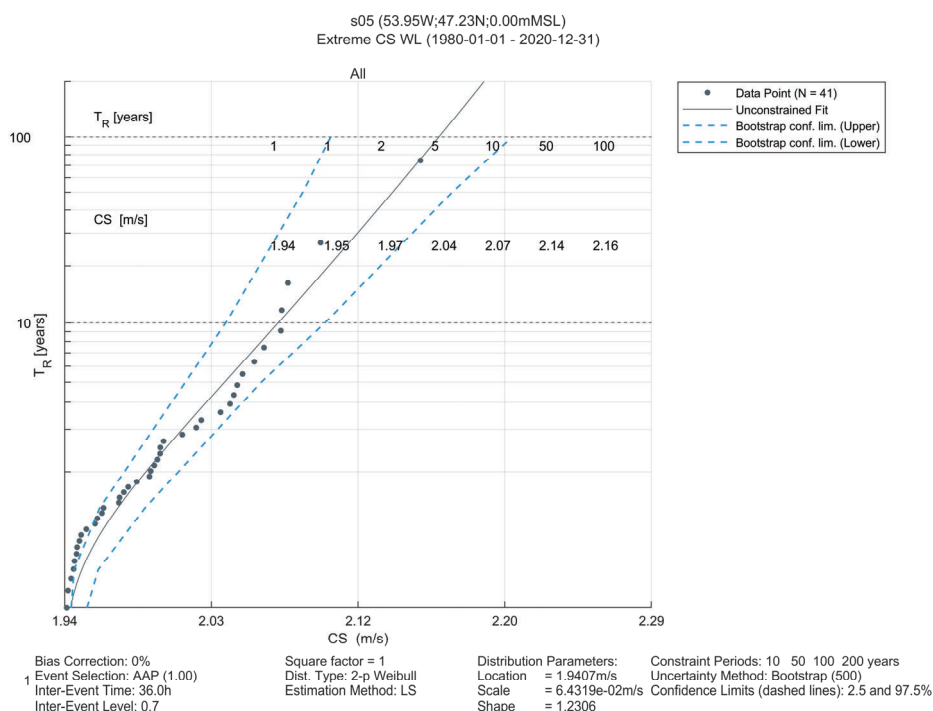


FIGURE G.40: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 06, PLACENTIA BAY MODEL

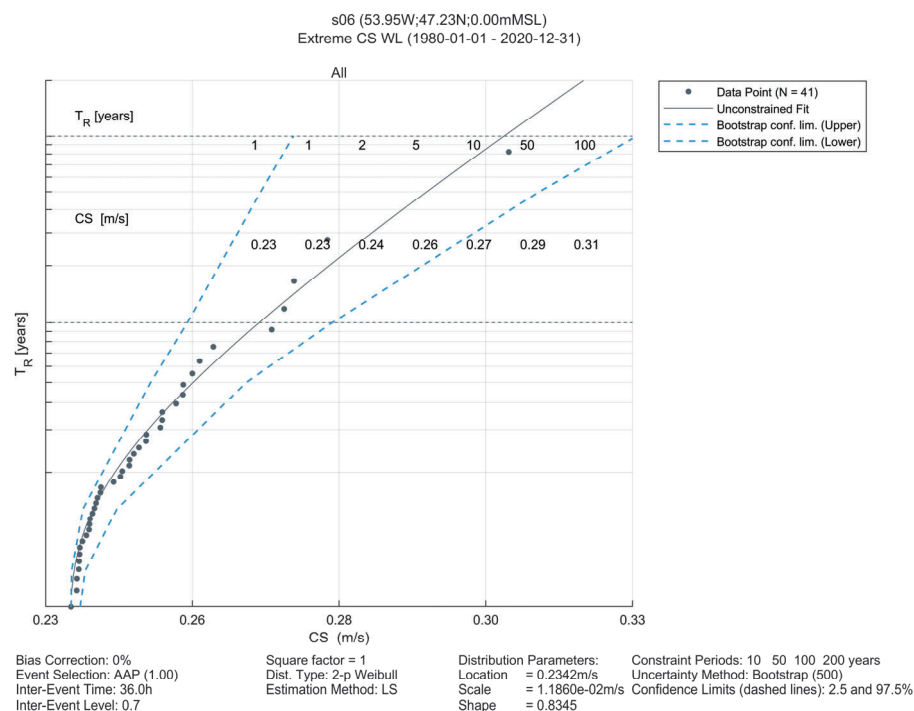


FIGURE G.41: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 07, PLACENTIA BAY MODEL

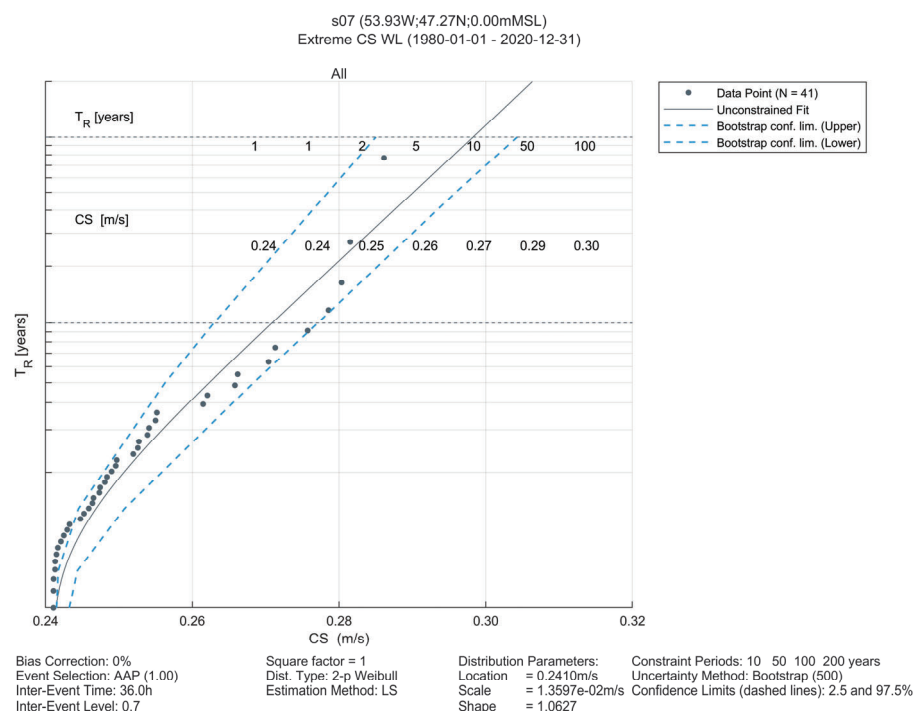


FIGURE G.42: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 08, PLACENTIA BAY MODEL

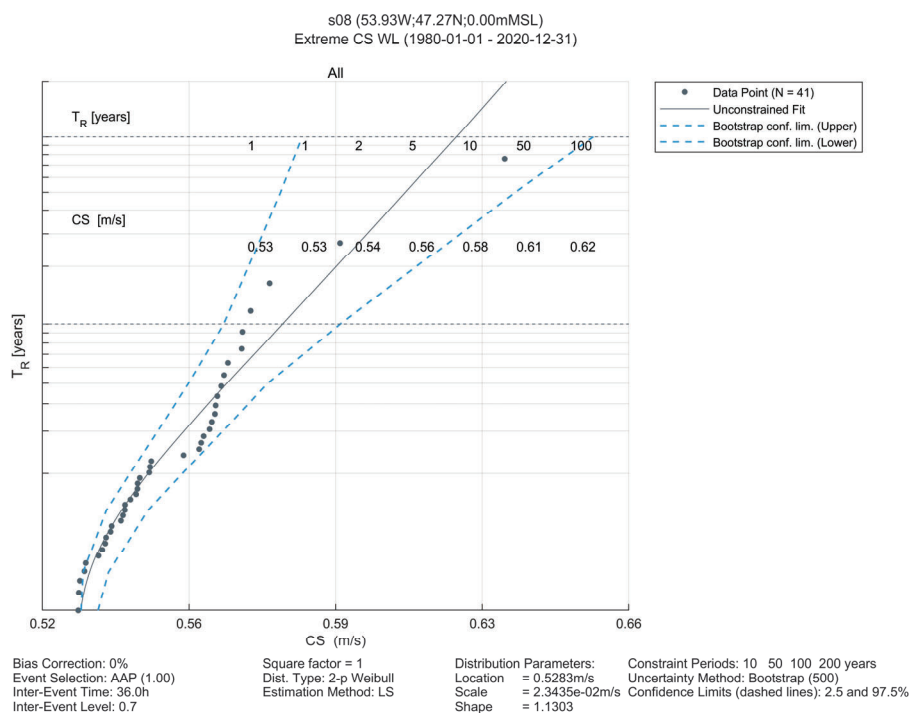


FIGURE G.43: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 09, PLACENTIA BAY MODEL

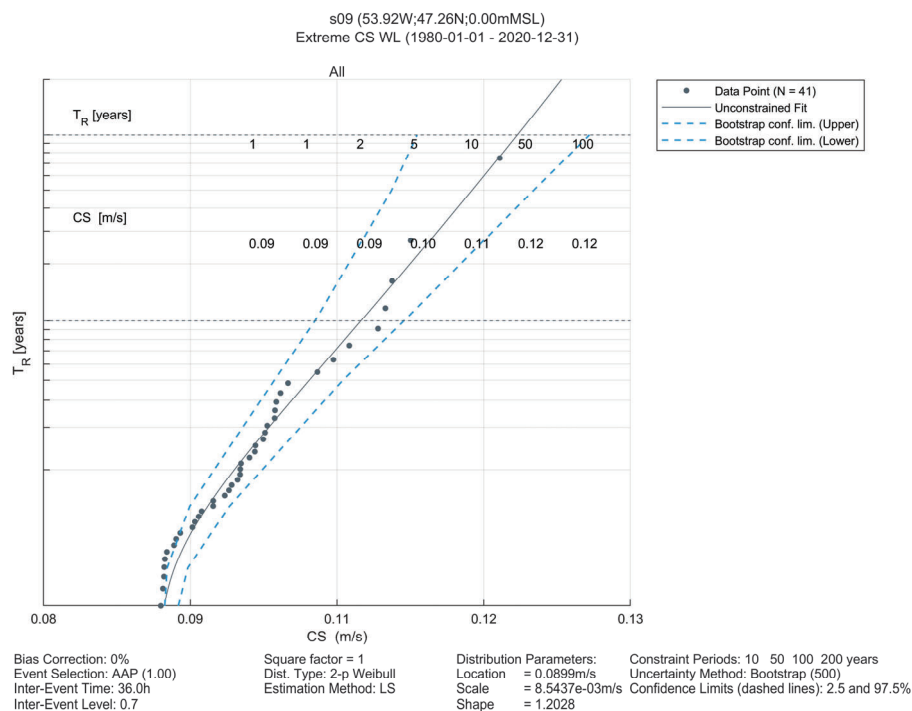


FIGURE G.44: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 10, PLACENTIA BAY MODEL

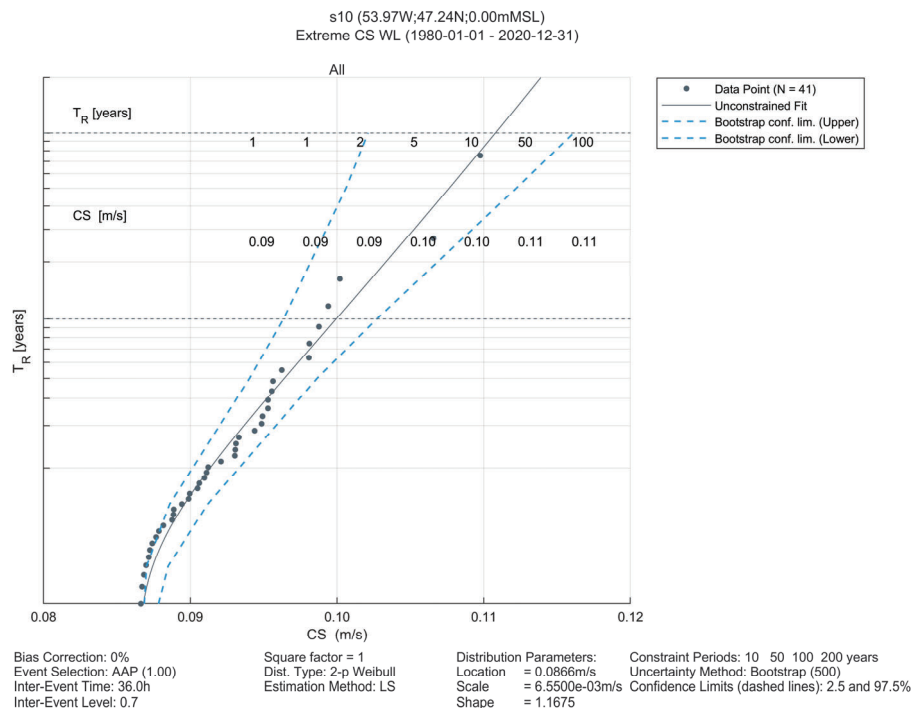


FIGURE G.45: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 11, PLACENTIA BAY MODEL

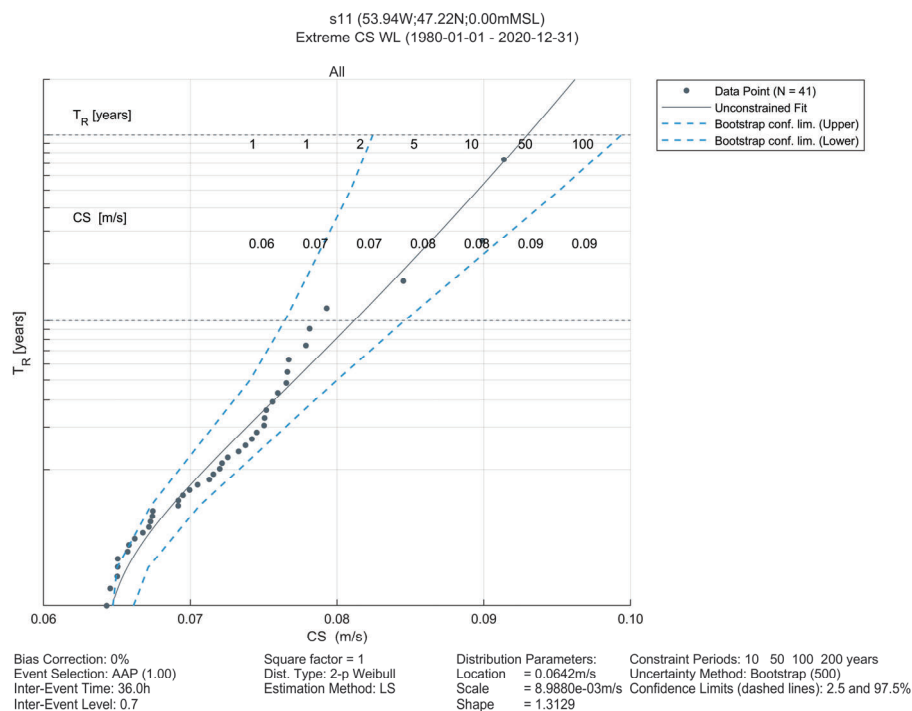


FIGURE G.46: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 12, PLACENTIA BAY MODEL

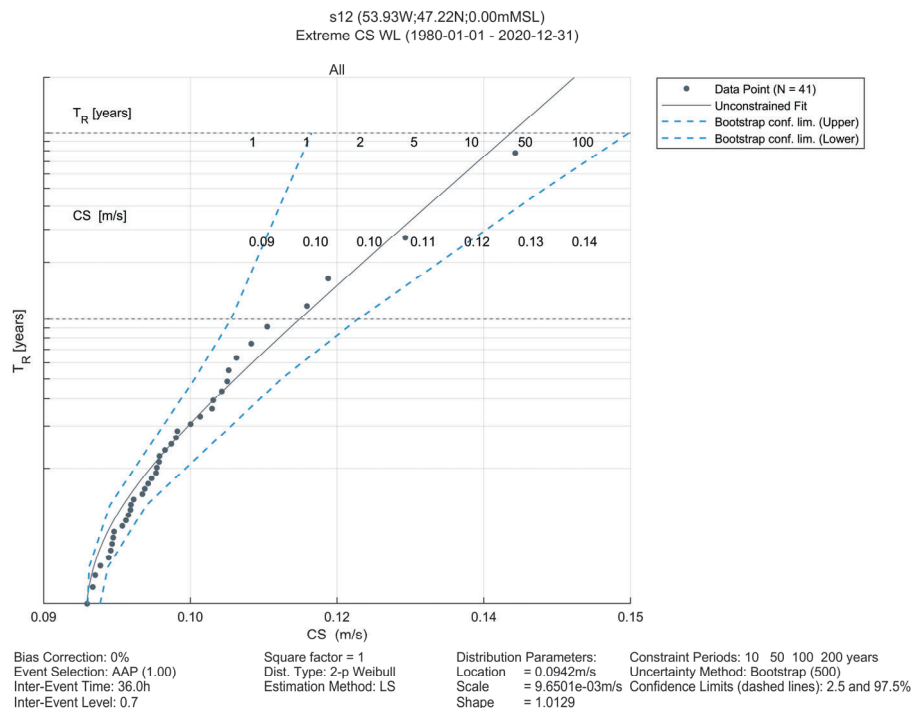


FIGURE G.47: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 13, PLACENTIA BAY MODEL

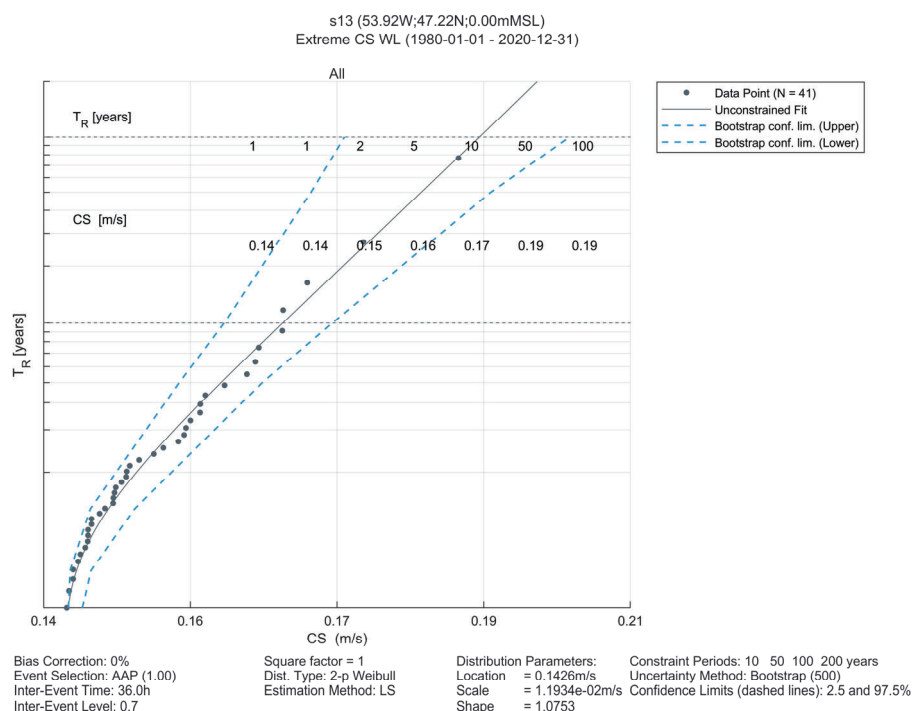


FIGURE G.48: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 14, PLACENTIA BAY MODEL

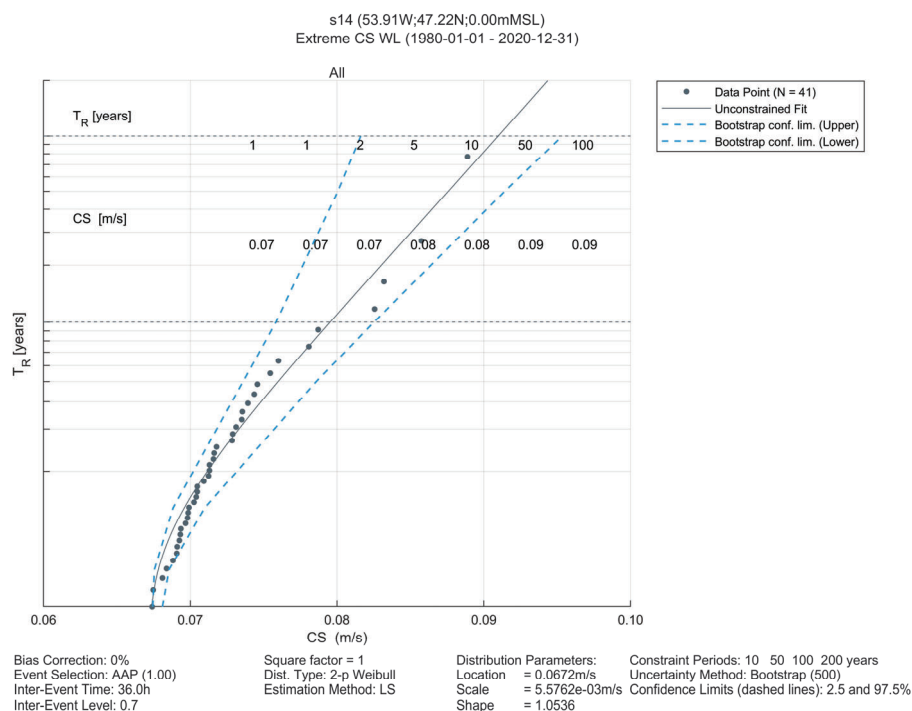


FIGURE G.49: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 15, PLACENTIA BAY MODEL

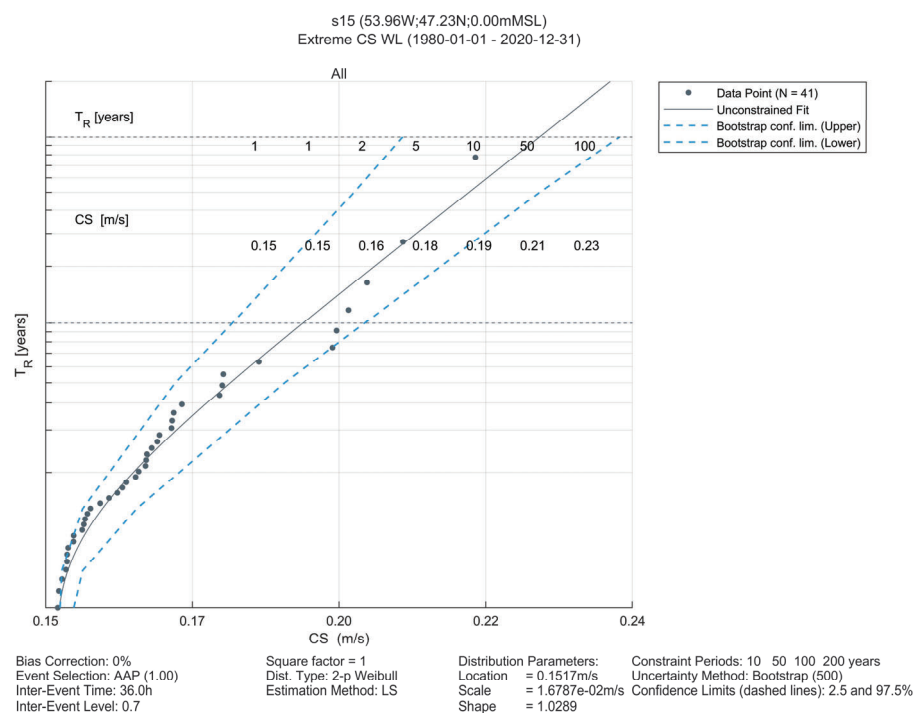


FIGURE G.50: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 16, PLACENTIA BAY MODEL

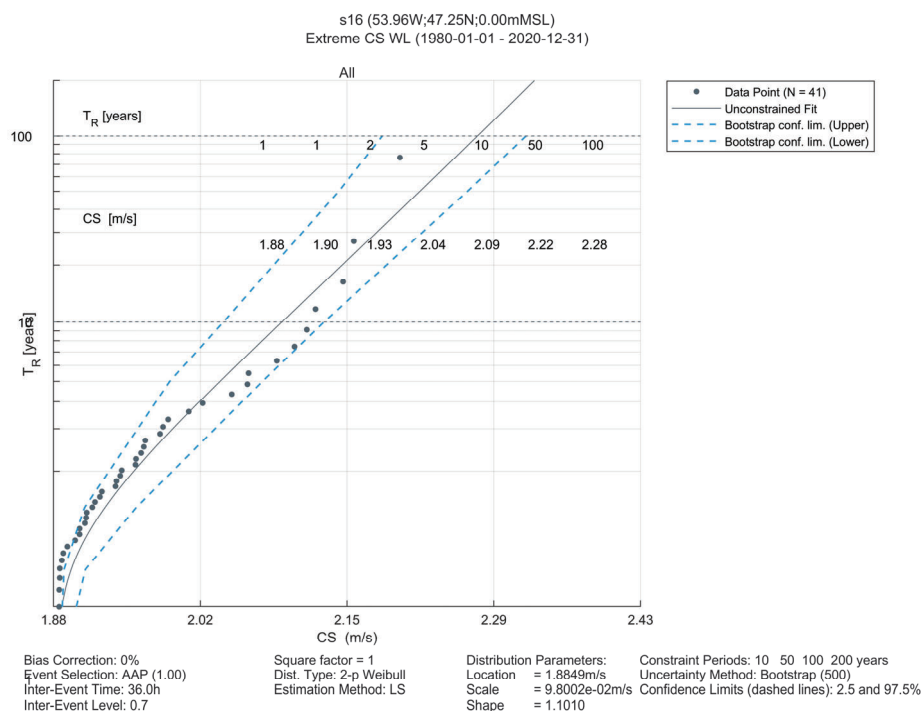


FIGURE G.51: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 17, PLACENTIA BAY MODEL

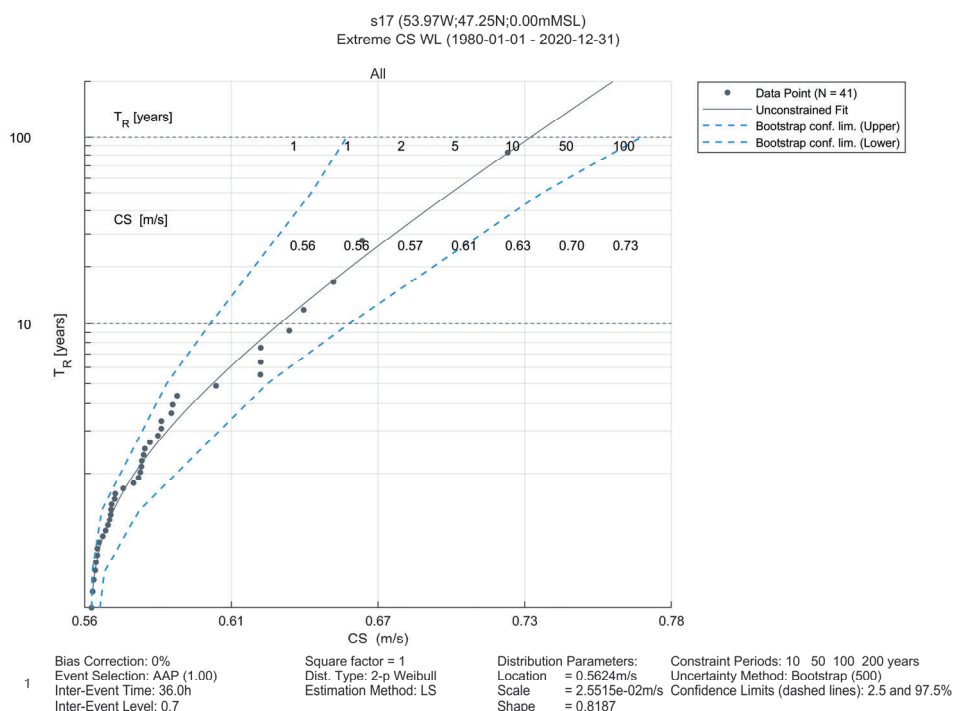


FIGURE G.52: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 18, PLACENTIA BAY MODEL

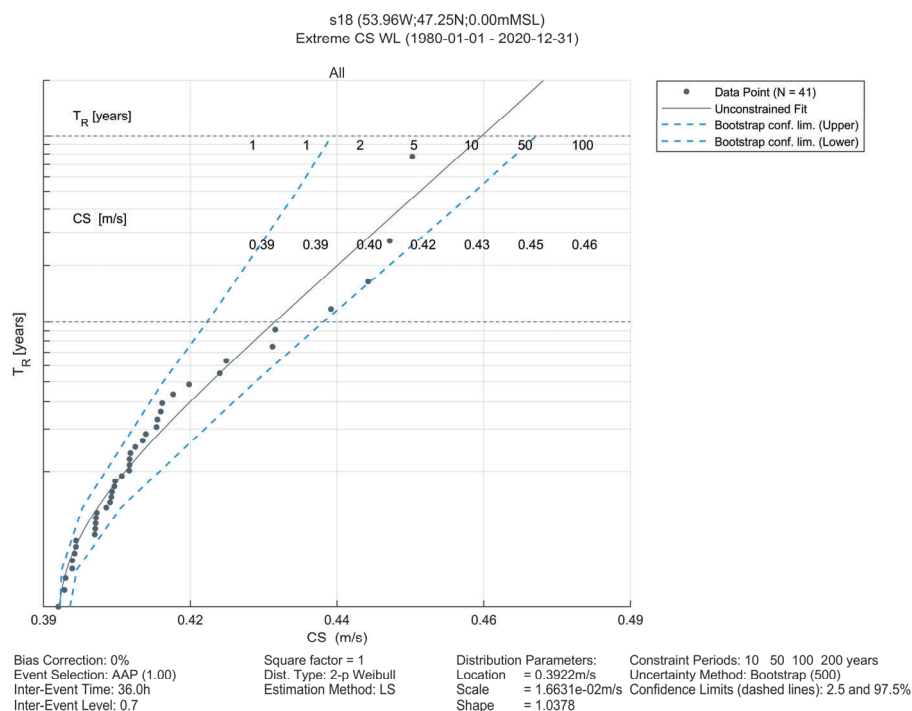


FIGURE G.53: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 19, PLACENTIA BAY MODEL

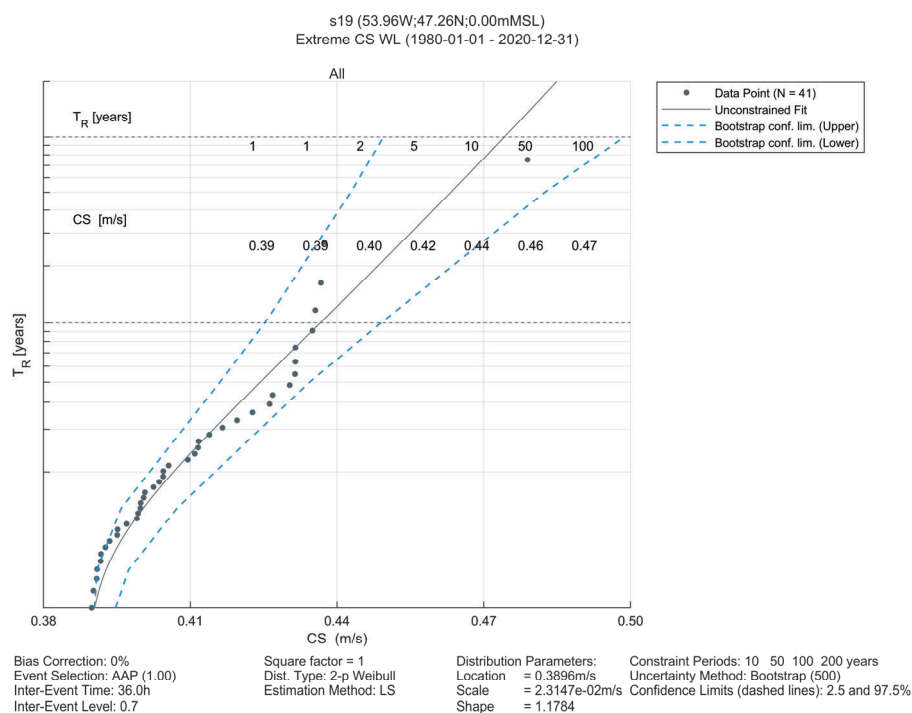


FIGURE G.54: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 20, PLACENTIA BAY MODEL

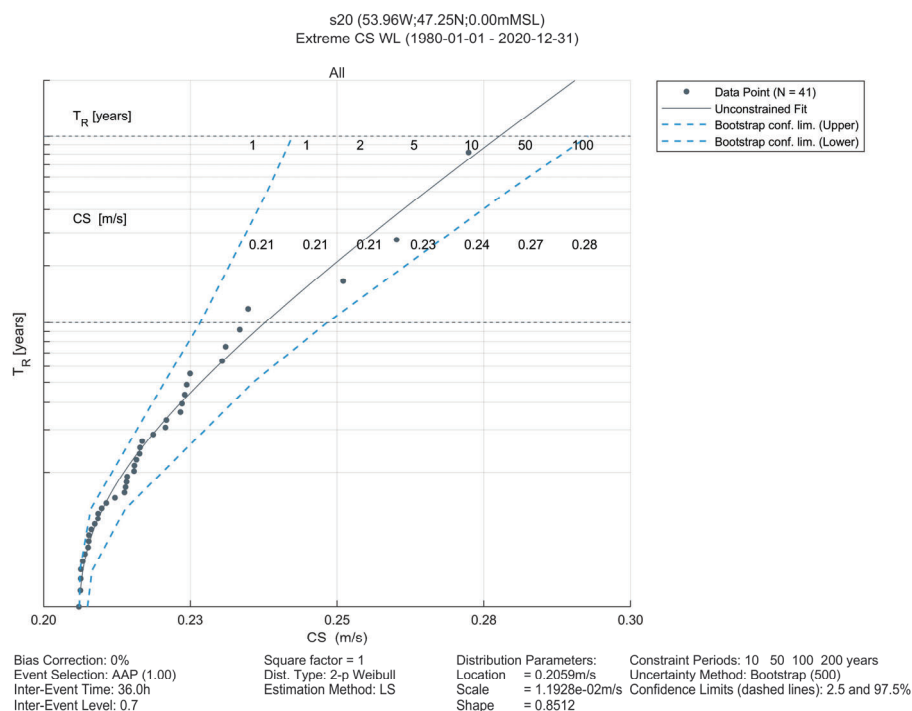


FIGURE G.55: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 21, PLACENTIA BAY MODEL

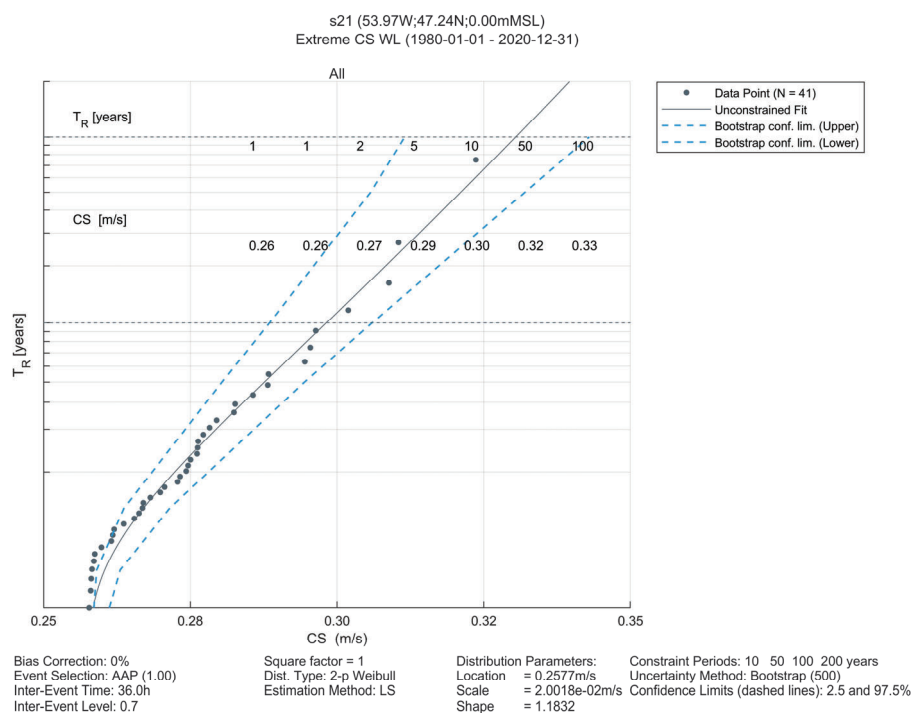


FIGURE G.56: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 22, PLACENTIA BAY MODEL

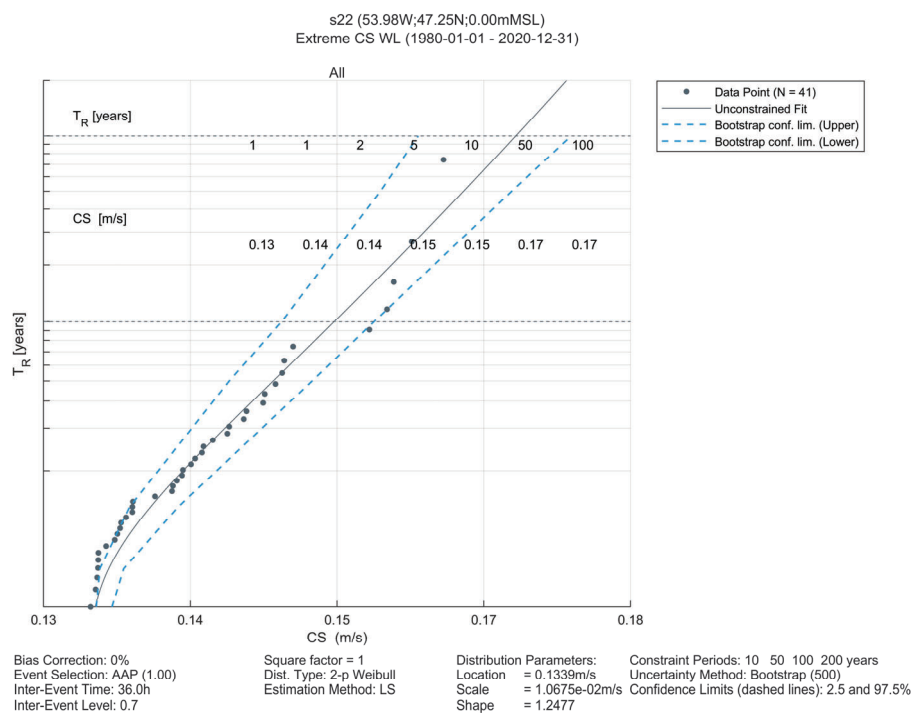


FIGURE G.57: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 23, PLACENTIA BAY MODEL

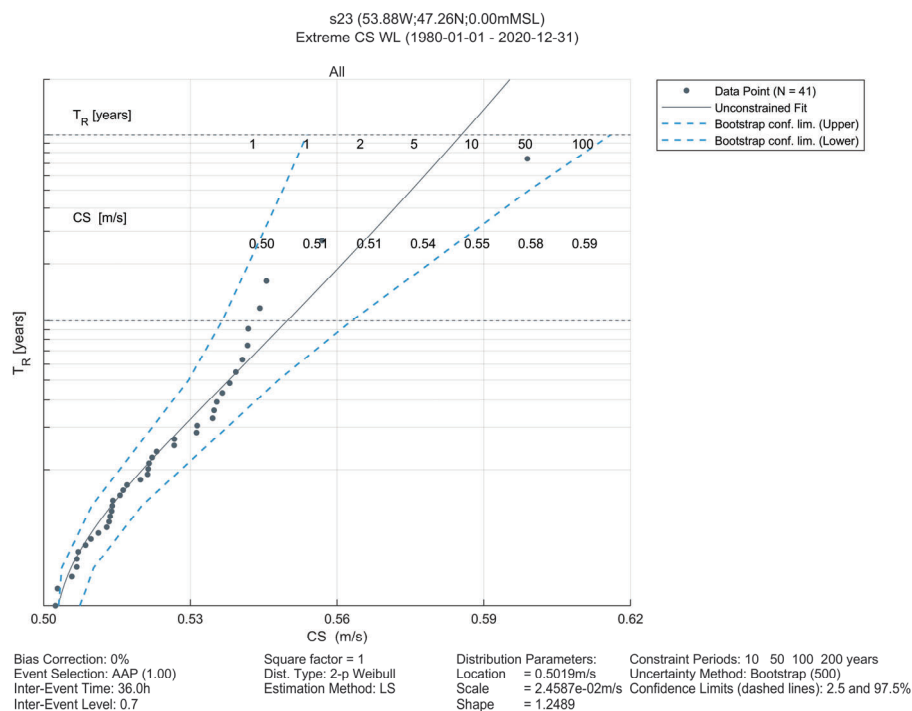


FIGURE G.58: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 24, PLACENTIA BAY MODEL

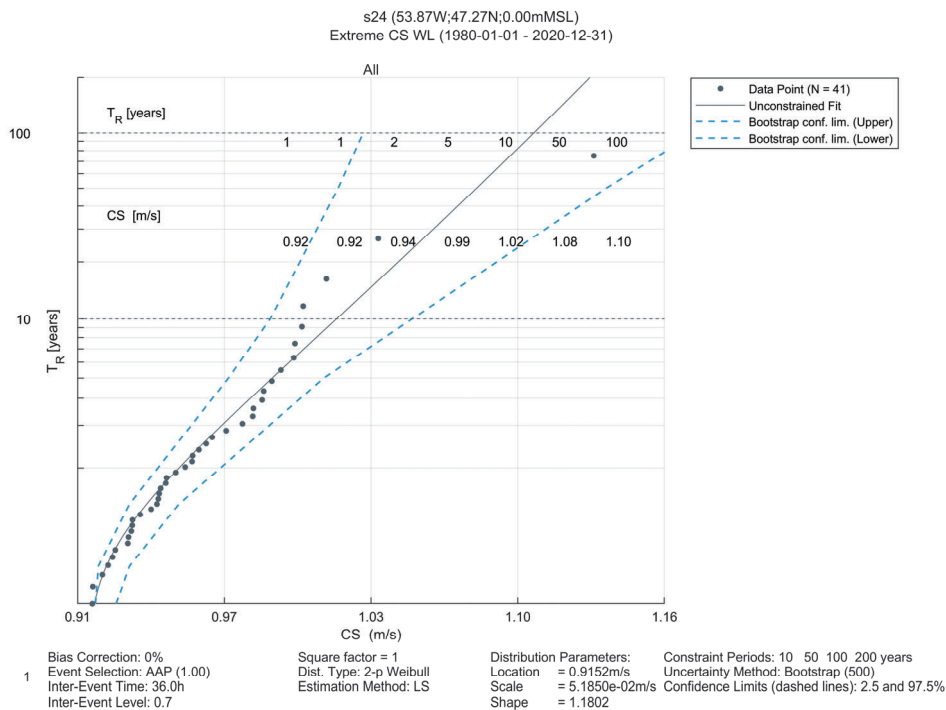


FIGURE G.59: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 25, PLACENTIA BAY MODEL

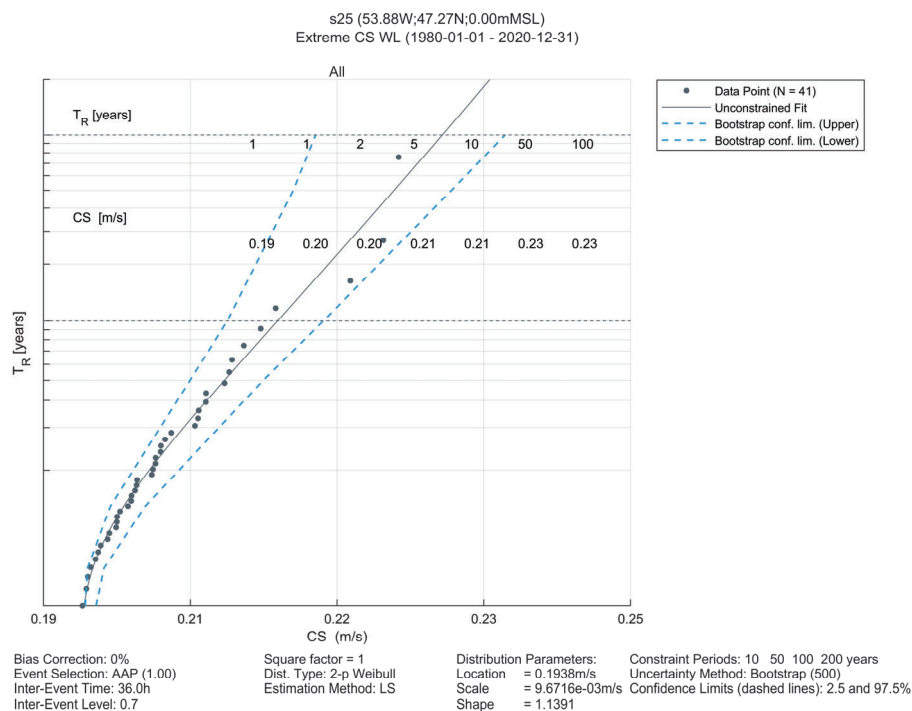


FIGURE G.60: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 26, PLACENTIA BAY MODEL

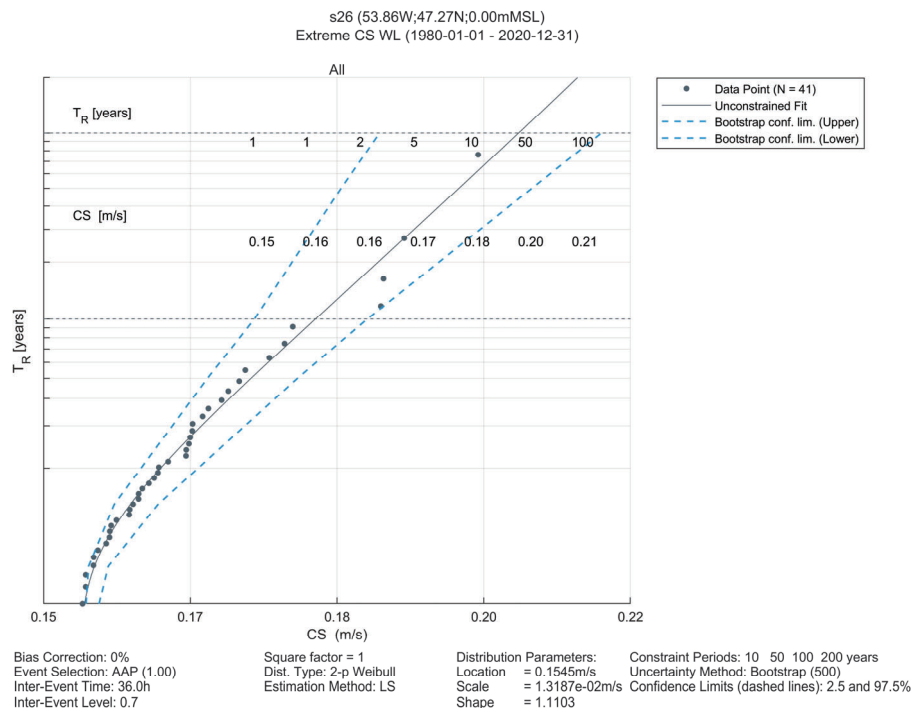


FIGURE G.61: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 27, PLACENTIA BAY MODEL

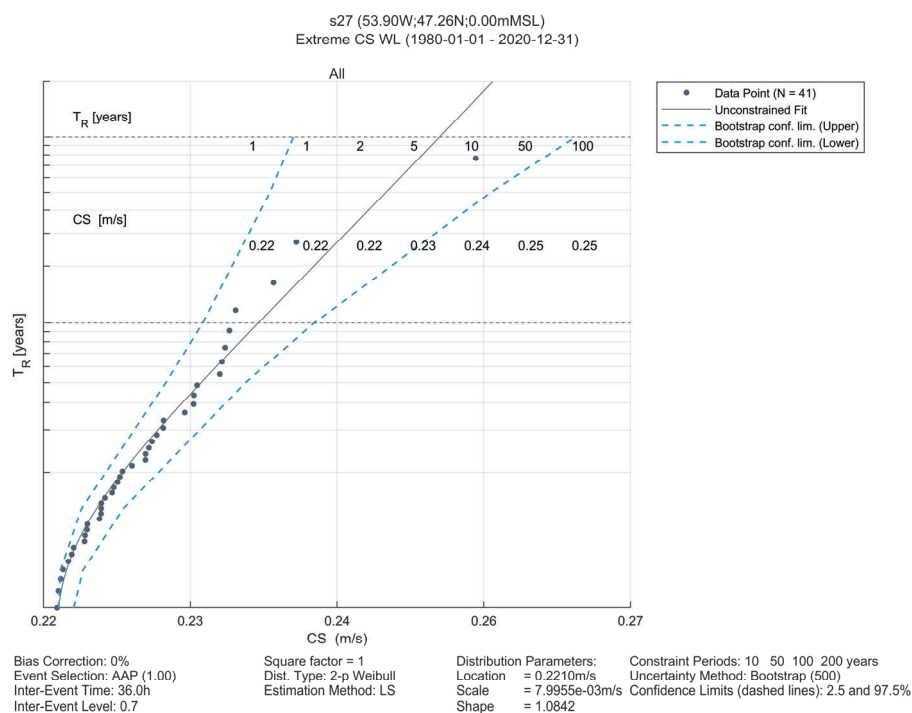


FIGURE G.62: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 28, PLACENTIA BAY MODEL

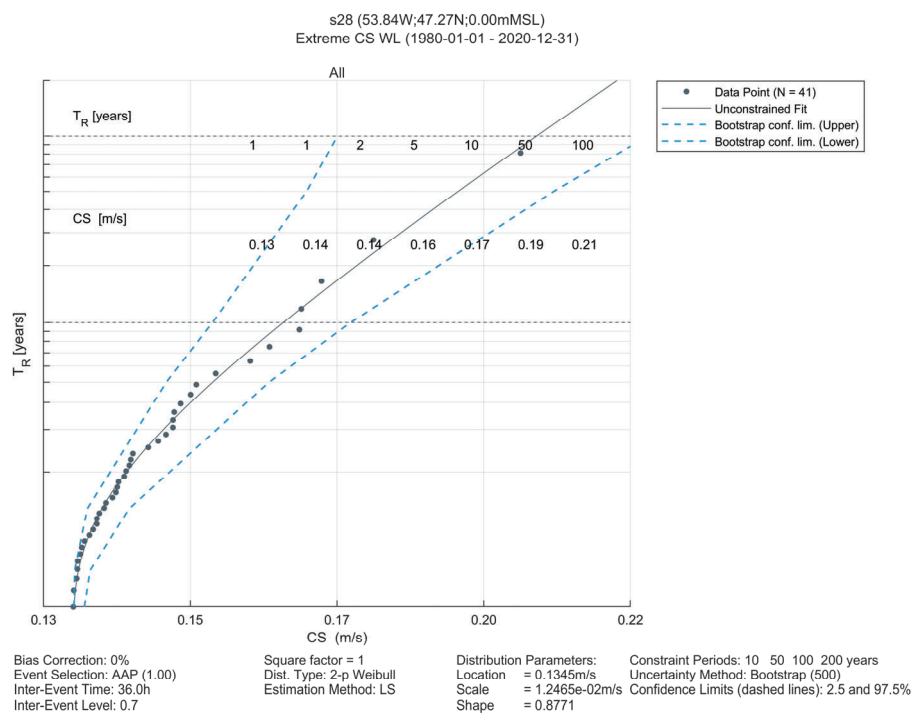


FIGURE G.63: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 29, PLACENTIA BAY MODEL

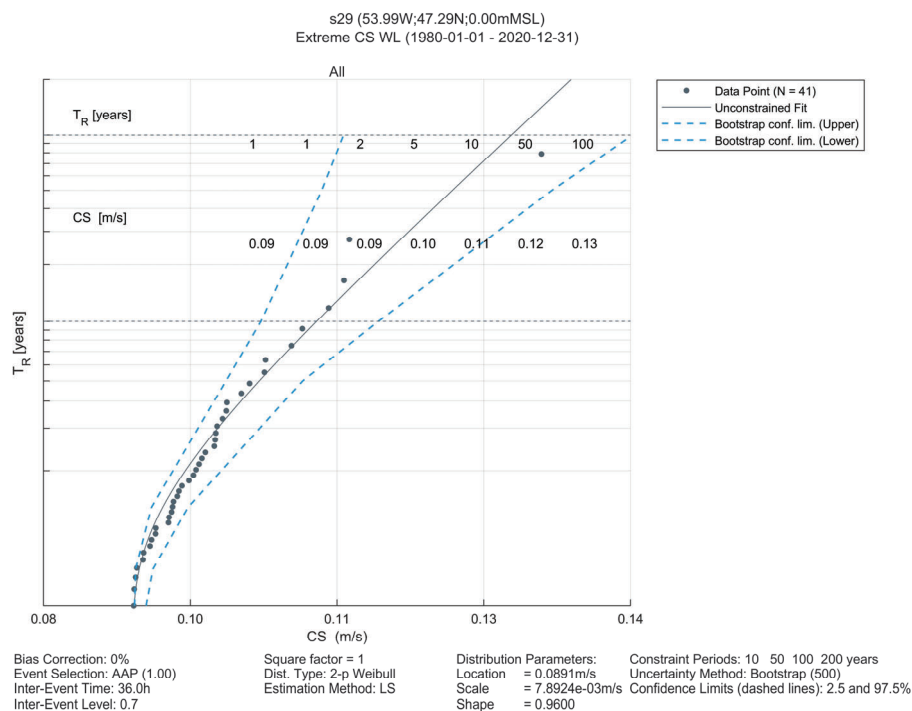


FIGURE G.64: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 30, PLACENTIA BAY MODEL

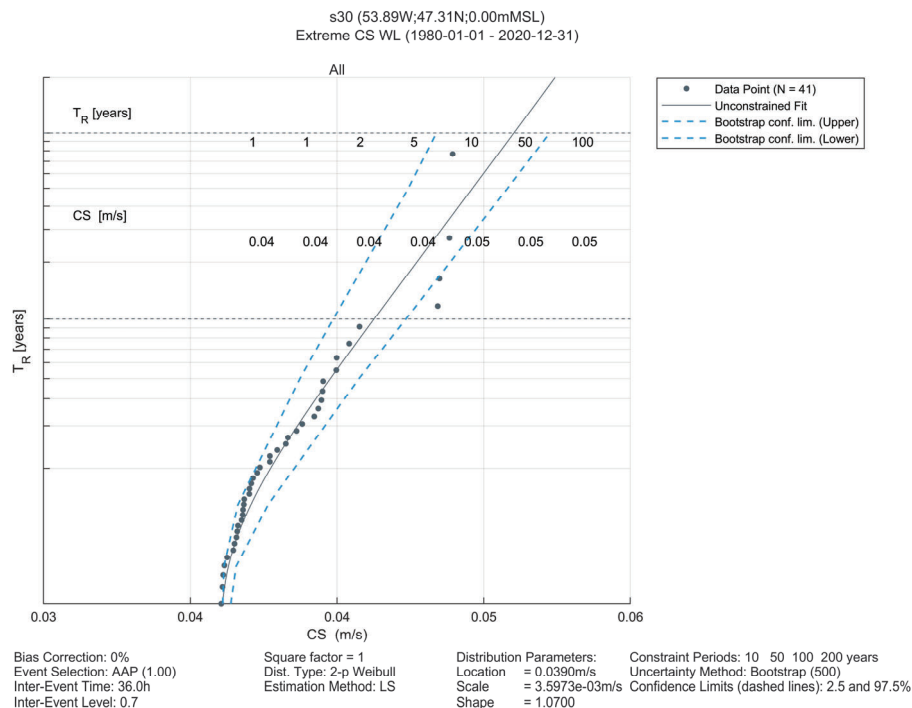


FIGURE G.65: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 31, PLACENTIA BAY MODEL

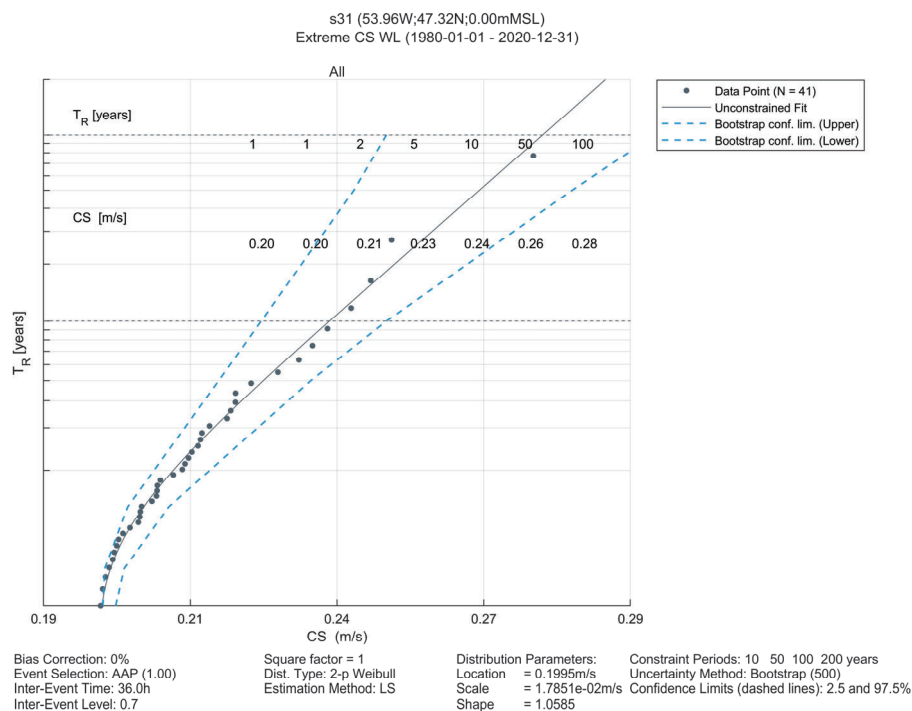


FIGURE G.66: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 32, PLACENTIA BAY MODEL

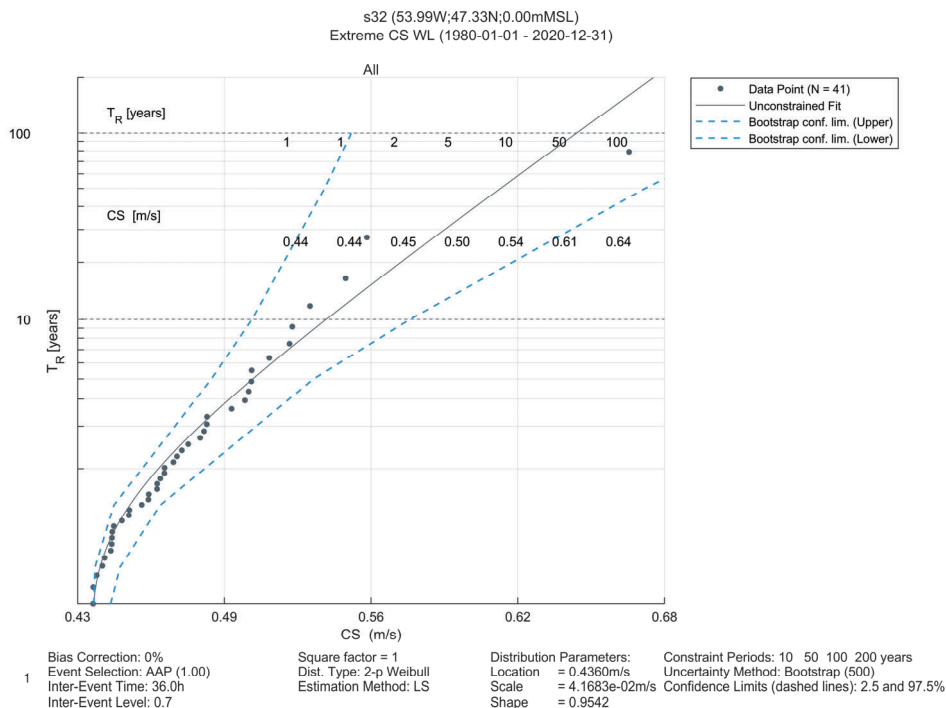


FIGURE G.67: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 33, PLACENTIA BAY MODEL

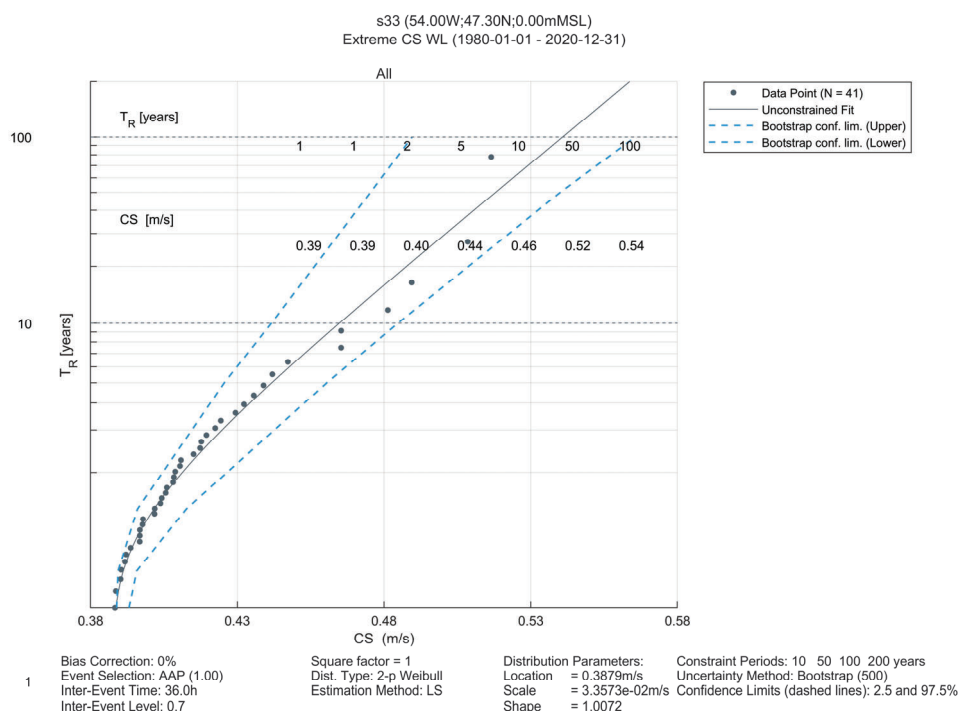
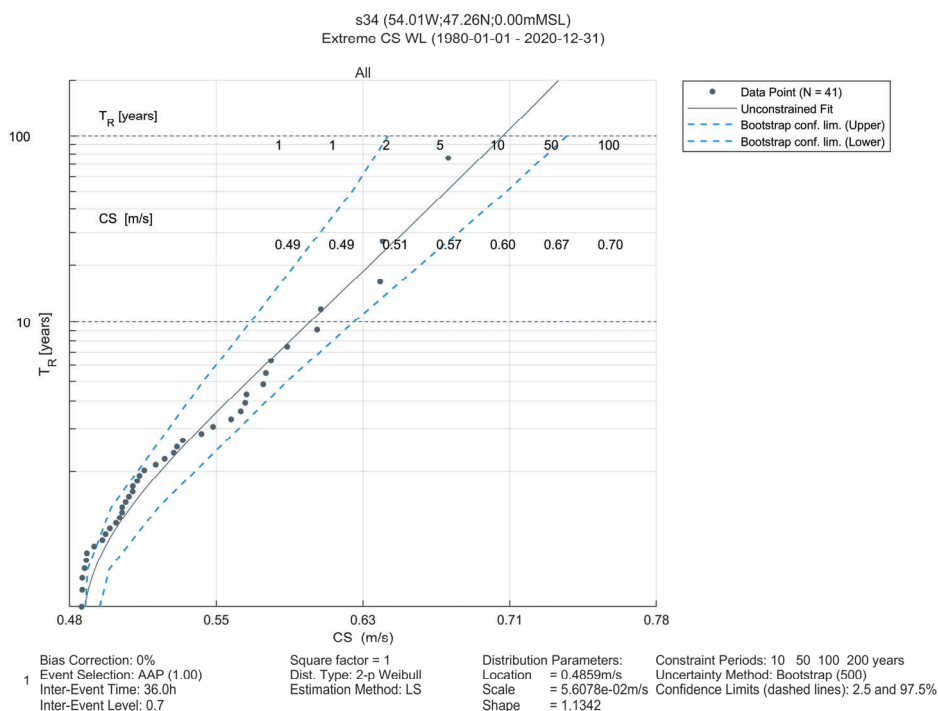


FIGURE G.68: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 34, PLACENTIA BAY MODEL



Carbonear and Salmon Cove Total Water Levels

FIGURE G.69: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 01, CONCEPTION BAY MODEL

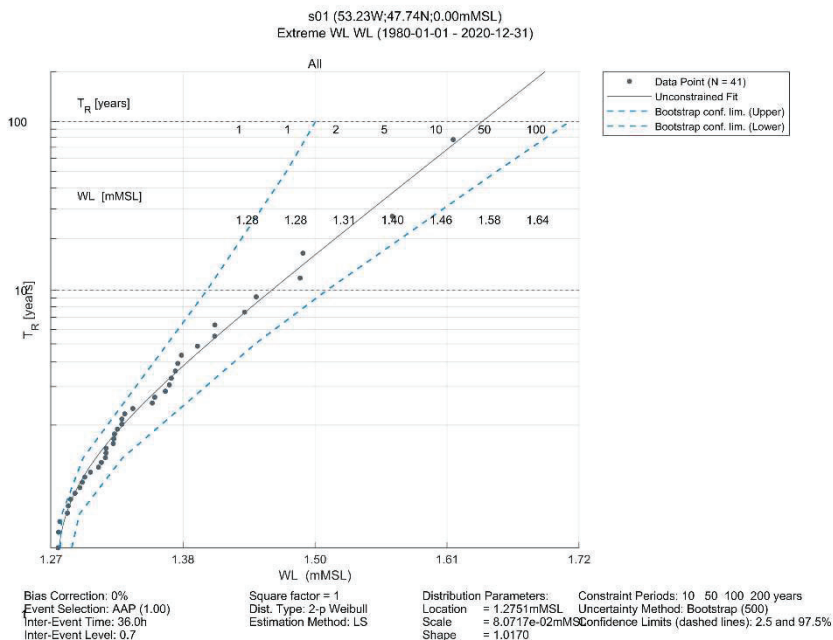


FIGURE G.70: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 02, CONCEPTION BAY MODEL

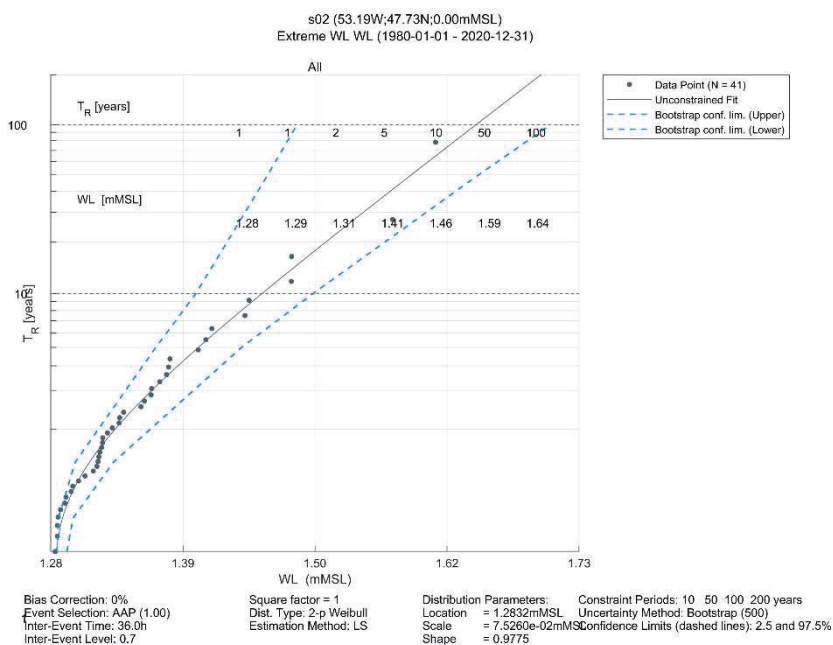


FIGURE G.71: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 03, CONCEPTION BAY MODEL

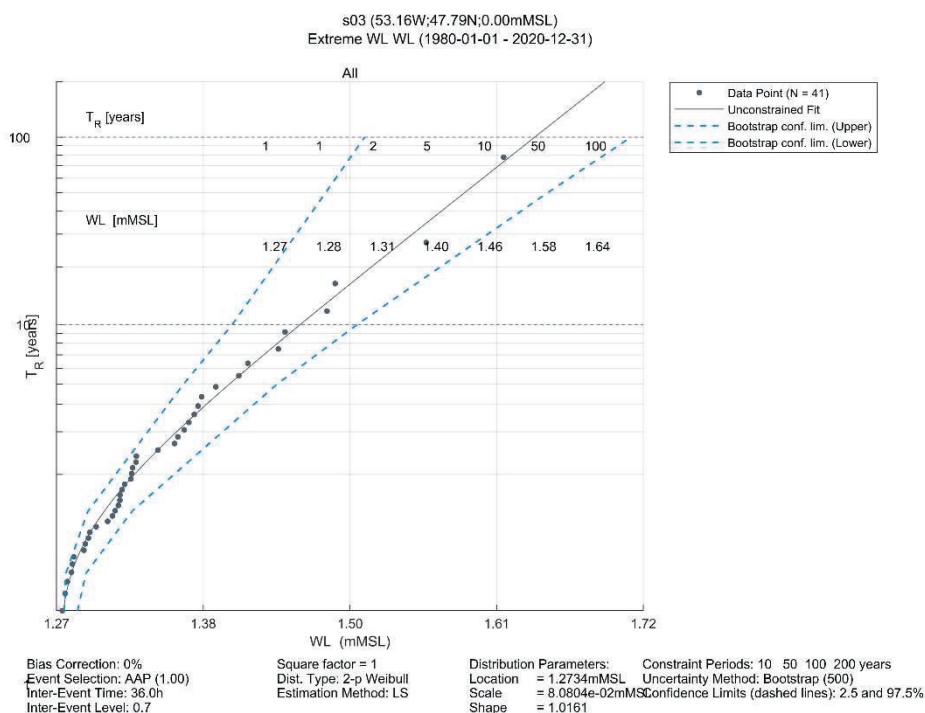


FIGURE G.72: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 04, CONCEPTION BAY MODEL

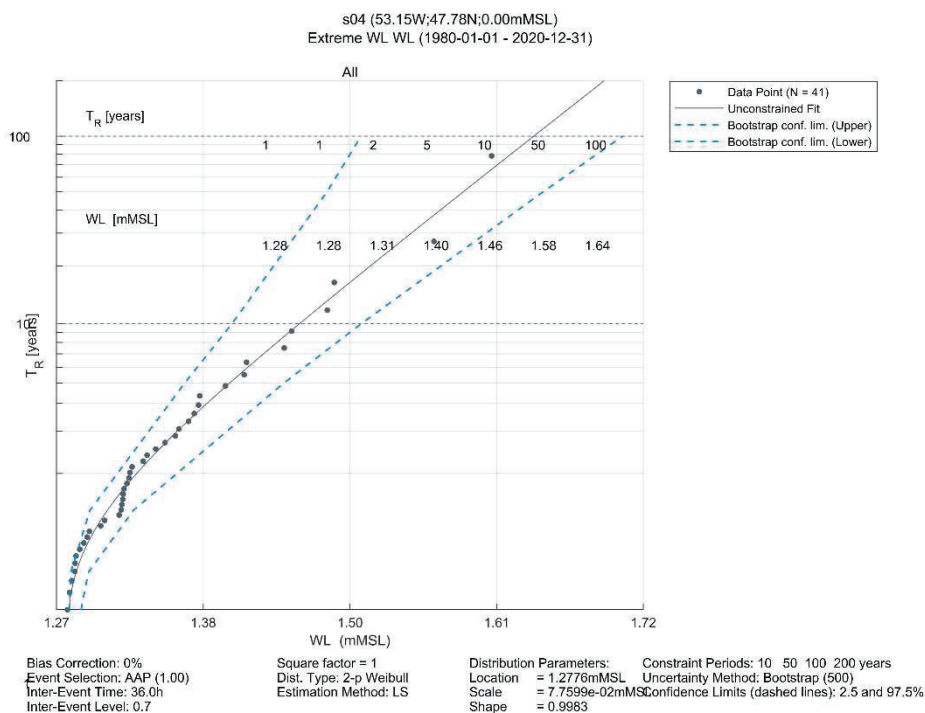
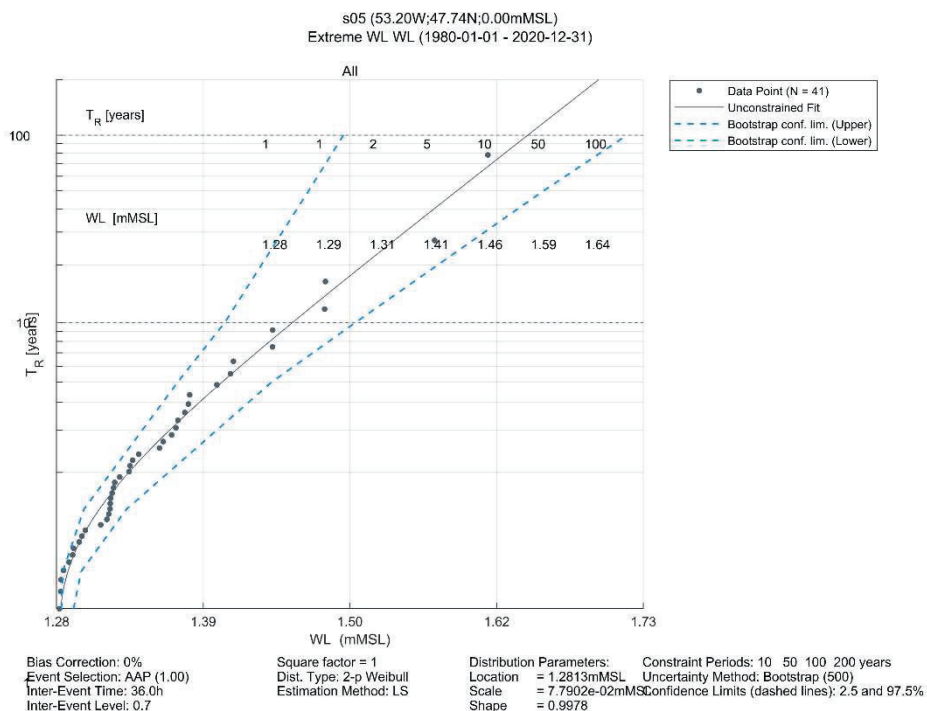


FIGURE G.73: TOTAL WATER LEVEL (M, MSL) EVA AT STATION 05, CONCEPTION BAY MODEL



Carbonear and Salmon Cove Current Magnitudes

FIGURE G.74: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 01, CONCEPTION BAY MODEL

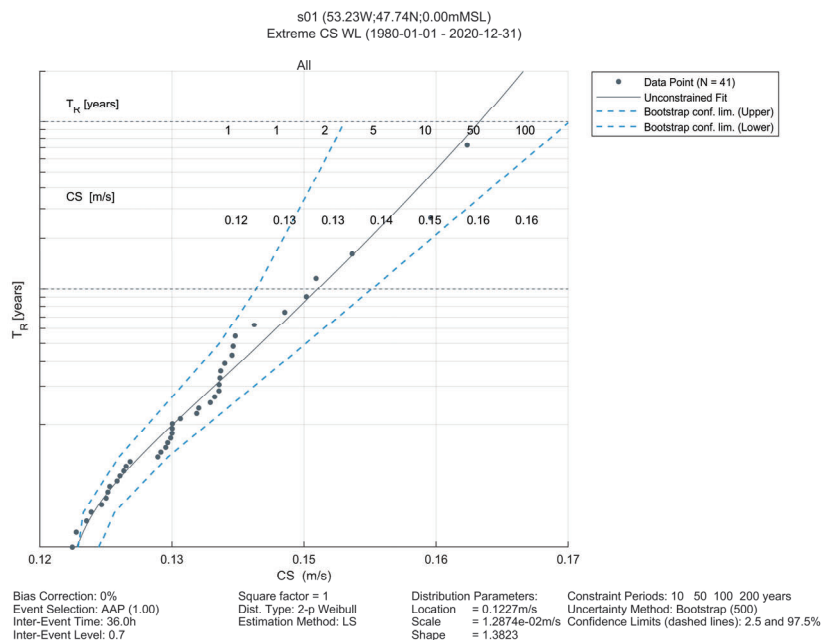


FIGURE G.75: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 02, CONCEPTION BAY MODEL

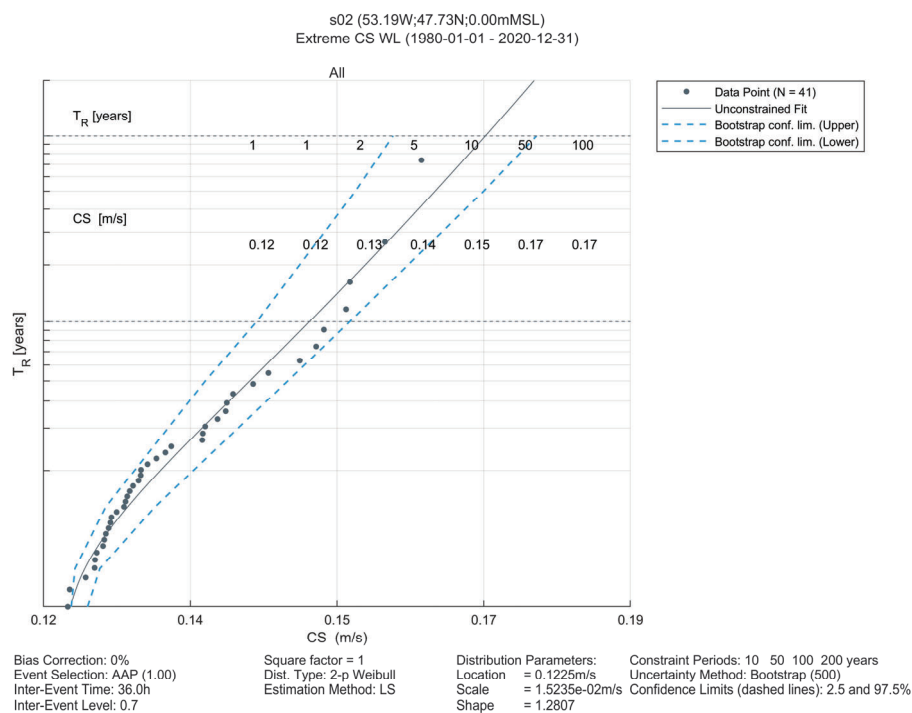


FIGURE G.76: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 03, CONCEPTION BAY MODEL

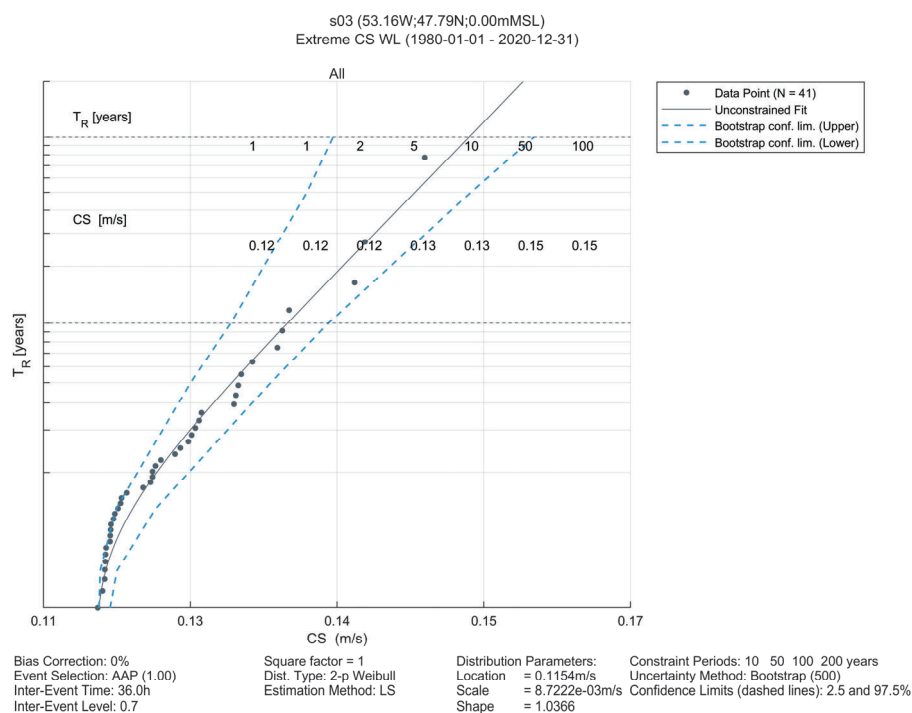


FIGURE G.77: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 04, CONCEPTION BAY MODEL

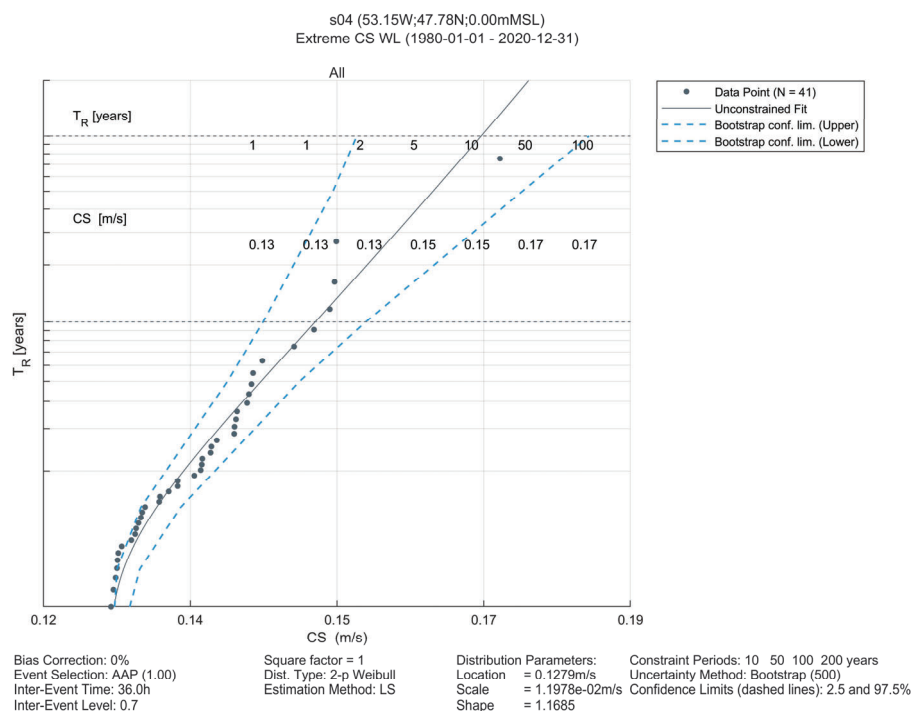


FIGURE G.78: DEPTH AVERAGED CURRENT SPEEDS (M/S) EVA AT STATION 05, CONCEPTION BAY MODEL

