Station	5213B01		Station	5415E03	
Sen's test			# Sen's test		
n	101	Number of datapoints	n	11 1	Number of datapoints
N'	5050	Number of slopes	N'	55 N	Number of slopes
S	-0.0021	Median slope (Sen's slope estimate)	S	0.007	Median slope (Sen's slope estimate)
var(S)	116146	variance of S	var(S)	165 v	variance of S
M1	2244 69	Rank M1	M1	16 9348 6	Rank M1
$\Omega(2244.60)$	-0 0030	l ower confidence level of slones	O(16.0348)	-0.012	ower confidence level of slopes
Q(2244.00)	2005 21	Book M2	Q(10.00+0)	20 0652 0	Ponk M2
0(2005 21)	2003.31	Lanar confidence level of clopes		0.00321	Inner confidence level of clones
Q(2005.51)	-0.0002	opper confidence level of slopes	Q(30.0052)	0.0279 (of increasing trend rejected
Result	Hypothesis	or increasing trend rejected	Result	Hypothesis	of increasing trend rejected
	Hypothesis	s of decreasing trend accepted		Hypothesis	of decreasing trend rejected
Mann-Kend	lall test		Mann-Kendall	test	
n	101	Number of datapoints	n	11 1	Number of datapoints
S	-646	Mann Kendall test statistic	S	11 N	Vann Kendall test statistic
Var(S)	116146	Variance	Var(S)	165 \	/ariance
Z, z(1-a)	-1.8926, 1.	Normal approximation	Z, z(1-a)	0.7785, 1.61	Normal approximation
Probability	0.0292	Probability associated with S for	Probability	0.2182 F	Probability associated with S for
Result	Hypothesis	of increasing trend rejected	Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend accepted		Hypothesis	of decreasing trend rejected
Station	5304G01		Station	5426L01	
Sen's test			Sen's test		
n	36	Number of datapoints	n	121 1	Number of datapoints
N'	630	Number of slopes	N'	7260 1	Number of slopes
S	0.0020	Modian slope (Son's slope ostimate)	S	-0.0015	Madian slope (Son's slope ostimate)
J Vor(S)	0.0029	variance of S	J Vor(S)	100242.7	veriance of S
	054 000	Valiance of S	var(S)	199243.7	
	204.020			3202.003 F	
Q(254.626)	-0.0042	Lower confidence level of slopes	Q(3262.863)	-0.0057 L	
M2	375.374	Rank M2	M2	3997.137 F	Rank M2
Q(375.374)	0.01	Upper confidence level of slopes	Q(3997.137)	0.0029 l	Jpper confidence level of slopes
Result	Hypothesis	s of increasing trend rejected	Result	Hypothesis	of increasing trend rejected
	Hypothesis	s of decreasing trend rejected		Hypothesis	of decreasing trend rejected
Mann-Kend	lall test		Mann-Kendall	test	
n	36	Number of datapoints	n	121 1	Number of datapoints
S	43	Mann Kendall test statistic	S	-256 N	Mann Kendall test statistic
Var(S)	5388	Variance	Var(S)	199243.7 \	/ariance
Z, z(1-a)	0.5722, 1.6	Normal approximation	Z, z(1-a)	-0.5713, 1.1	Normal approximation
Probability	0.2836	Probability associated with S for	Probability	0.2839 F	Probability associated with S for
Result	Hypothesis	of increasing trend rejected	Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend rejected		Hypothesis	of decreasing trend rejected
Station	5307M01	· · · · · · · · · · · · · · · · · · ·	Station	54271 01	
Sen's test			Sen's test	0.2.201	
n	40	Number of datapoints	n	77 1	Number of datapoints
N'	780	Number of slopes	 N'	2926 N	Number of slopes
\$	-0.0078	Median slope (Sen's slope estimate)	S	-0 0135 N	Median slope (Sen's slope estimate)
Upr(S)	7265 667	variance of S	Upr(S)	51601 67 v	variance of S
Val(5)	210 4102	Ponk M1	Val(3)	1031.07	
	319.4102	Ralik Wil		12/0.990 F	
Q(319.4102	-0.01	Lower confidence level of slopes	Q(1275.998)	-0.0179 L	
M2	460.5898	Rank M2	M2	1650.002 F	Rank M2
Q(460.5898	-0.0056	Upper confidence level of slopes	Q(1650.002)	-0.0084 l	Jpper confidence level of slopes
Result	Hypothesis	s of increasing trend rejected	Result	Hypothesis	of increasing trend rejected
	Hypothesis	s of decreasing trend accepted		Hypothesis	of decreasing trend accepted
Mann-Kend	lall test		Mann-Kendall	test	
n	40	Number of datapoints	n	77 🛚	Number of datapoints
S	-402	Mann Kendall test statistic	S	-845 N	Mann Kendall test statistic
Var(S)	7365.667	Variance	Var(S)	51691.67 \	/ariance
Z, z(1-a)	-4.6724, 1.	Normal approximation	Z, z(1-a)	-3.7122, 1.1	Normal approximation
Probability	0	Probability associated with S for	Probability	0.0001 F	Probability associated with S for
Result	Hypothesis	of increasing trend rejected	Result	Hypothesis	of increasing trend rejected
	Hypothesis	s of decreasing trend accepted		Hypothesis	of decreasing trend accepted
		a secondaring fronta accorption		, pourooio .	e. actionaling home according

Station	5308A02	
Sen's test		
n	91	Number of datapoints
N'	4095	Number of slopes
S	-0.0052	Median slope (Sen's slope estimate)
var(S)	85082	variance of S
M1	1807 586	Rank M1
O(1807 586	-0.0061	I ower confidence level of slopes
M2	2287 /1/	Rank M2
0/2287 / 1/	1 -0 00/1	I Inner confidence level of slones
Q(2207.41-	Hypothosis	of increasing trend rejected
Result	Lypothesis	of decreasing trend ecced
Monn Kond		or decreasing trend accepted
Mann-Kend		Number of datasets
n	91	Number of datapoints
5	-2125	
var(S)	85082	Variance
Z, z(1-a)	-7.2817, 1.	Normal approximation
Probability	0	Probability associated with S for
Result	Hypothesis	s of increasing trend rejected
	Hypothesis	s of decreasing trend accepted
Station	5308H01	
Sen's test		
n	42	Number of datapoints
N'	861	Number of slopes
S	-0.0056	Median slope (Sen's slope estimate)
var(S)	8513.333	variance of S
M1	354.6098	Rank M1
Q(354.6098	-0.0091	Lower confidence level of slopes
M2	506.3902	Rank M2
Q(506.3902	-0.0018	Upper confidence level of slopes
Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend accepted
Mann-Kend	all test	3
n	42	Number of datapoints
S	-210	Mann Kendall test statistic
Var(S)	8513.333	Variance
$7_{7}(1-a)$	-2 2651 1	Normal approximation
Probability	0 0118	Probability associated with S for
Result	Hypothesis	of increasing trend rejected
ACOUL	Hypothesis	of decreasing trend accented
Station	5210010	or decreasing rend accepted
Son's test	5510410	
Sensiest	00	Number of detersints
	23	Number of datapoints
	253	Number of slopes
S	-0.008	Median slope (Sen's slope estimate)
var(S)	1433.667	variance of S
M1	95.357	Rank M1
Q(95.357)	-0.0173	Lower confidence level of slopes
M2	157.643	Rank M2
Q(157.643)	0.0003	Upper confidence level of slopes
Result	Hypothesis	s of increasing trend rejected
	Hypothesis	of decreasing trend rejected
Mann-Kend	all test	
n	23	Number of datapoints
S	-56	Mann Kendall test statistic
Var(S)	1433.667	Variance
$7_{7}(1-a)$	-1.4526 1	Normal approximation
Probability	0.0732	Probability associated with S for
Result	Hypothesis	of increasing trend rejected
ACOUL	Hypothesis	of decreasing trend rejected
	riypouresis	or accreasing trend rejected

Station	5505D01
Sen's test	
n	47 Number of datapoints
N'	1081 Number of slopes
S	0.0073 Median slope (Sen's slope estimate)
var(S)	11891 variance of S
M1	450 2002 Book M1
Q(450.6096)	0.002 Lower confidence level of slopes
	630.1902 Rank M2
Q(630.1902)	0.0128 Upper confidence level of slopes
Result	Hypothesis of increasing trend accepted
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	47 Number of datapoints
S	236 Mann Kendall test statistic
Var(S)	11891 Variance
Z, z(1-a)	2.1551, 1. Normal approximation
Probability	0.0156 Probability associated with S for
Result	Hypothesis of increasing trend accepted
	Hypothesis of decreasing trend rejected
Station	5507A04
Sen's test	
n	50 Number of datapoints
N'	1225 Number of slopes
S	-0.0027 Modian slope (Son's slope ostimate)
5 	14296 67 verience of S
var(S)	
	514.1891 Rank M1
Q(514.1891)	-0.0042 Lower confidence level of slopes
M2	710.8109 Rank M2
Q(710.8109)	-0.0009 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	50 Number of datapoints
S	-298 Mann Kendall test statistic
Var(S)	14286.67 Variance
Z, z(1-a)	-2.4848, 1. Normal approximation
Probability	0.0065 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Station	5507H01
Sen's test	
n	48 Number of datapoints
N'	1128 Number of slopes
8	0 Median clone (Sen's clone estimate)
Unr(S)	12659 67 voriance of S
Val(3)	12050.07 Valiance of 5
	47 1.4599 Rank Mi
Q(471.4599)	-0.0016 Lower confidence level of slopes
M2	656.5401 Rank M2
Q(656.5401)	0.0015 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	48 Number of datapoints
S	-5 Mann Kendall test statistic
Var(S)	12658.67 Variance
Z, z(1-a)	-0.0356, 1. Normal approximation
Probabilitv	0.4858 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
	,,

Station	5311J05	
Sen's test		
n	55	Number of datapoints
N'	1485	Number of slopes
S	-0.0028	Median slope (Sen's slope estimate)
var(S)	18972	variance of S
M1	629 2098	Rank M1
0(629 2098	-0.0048	I ower confidence level of slopes
M2	855 7002	Rank M2
$\Omega(855,790)$	-0.0007	I Inner confidence level of slopes
Result	Hypothesis	of increasing trend rejected
Result	Hypothosis	of decreasing trend accepted
Mann-Kong	all tost	of decreasing trend accepted
n n		Number of detensints
11 C	206	Mone Kondoll tost statistic
	-290	
var(5)	18972	Variance
Z, Z(1-a)	-2.1417, 1.	Normal approximation
Probability	0.0161	Probability associated with S for
Result	Hypothesis	or increasing trend rejected
.	Hypothesis	s of decreasing trend accepted
Station	5311J07	
Sen's test	_	
n	52	Number of datapoints
N'	1326	Number of slopes
S	-0.0025	Median slope (Sen's slope estimate)
var(S)	16057.33	variance of S
M1	558.7748	Rank M1
Q(558.7748	-0.0044	Lower confidence level of slopes
M2	767.2252	Rank M2
Q(767.2252	-0.0006	Upper confidence level of slopes
Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend accepted
Mann-Kenc	all test	5
n	52	Number of datapoints
S	-277	Mann Kendall test statistic
Var(S)	16057.33	Variance
Z. z(1-a)	-2.1781.1.	Normal approximation
Probability	0.0147	Probability associated with S for
Result	Hypothesis	of increasing trend rejected
ait	Hypothesis	s of decreasing trend accepted
Station	5312C01	
Sen's test	3012001	
n	43	Number of datapoints
N'	0U3	Number of slopes
S	- - - - -	Median slope (Sen's slope estimate)
S Vor(S)	0120 222	variance of S
var(3) M1	3130.333	Ponk M1
	312.9078	Ralik IVI I
Q(372.9078	520,0025	Lower confidence level of slopes
	530.0922	
Q(530.0922	2 0.0044	upper contidence level of slopes
Result	Hypothesis	or increasing trend rejected
•• ••	Hypothesis	s of decreasing trend rejected
Mann-Kenc	all test	
n	43	Number of datapoints
S	3	Mann Kendall test statistic
Var(S)	9130.333	Variance
Z, z(1-a)	0.0209, 1.6	Normal approximation
Probability	0.4917	Probability associated with S for
Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend rejected

Station	5508M01
Sen's test	
n	49 Number of datapoints
N'	1176 Number of slopes
S Vor(C)	0 Median slope (Sen's slope estimate)
var(5) M1	13457.07 Vallance of 5 492 5841 Pank M1
$\Omega(492.5841)$	-0.0006 Lower confidence level of slopes
M2	683,4159 Rank M2
Q(683.4159)	0.0005 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	49 Number of datapoints
S Var(C)	-21 Mann Kendall test statistic
Var(S)	0.1724 1 Normal approximation
Z, Z(1-a) Probability	0.4316 Probability associated with S for
Result	Hypothesis of increasing trend rejected
rtooun	Hypothesis of decreasing trend rejected
Station	5508M02
Sen's test	
n	52 Number of datapoints
N'	1326 Number of slopes
S	0.0003 Median slope (Sen's slope estimate)
var(S)	16058.33 Variance of S
NI I 0(558 7716)	-0.0003 Lower confidence level of slopes
M2	767 2284 Rank M2
Q(767.2284)	0.0009 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	52 Number of datapoints
S Vor(S)	128 Mann Kendall test statistic
Var(5) 7 z(1-2)	10022 1 6 Normal approximation
Z, Z(1-a) Probability	0 1581 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Station	5515C01
Sen's test	
n	50 Number of datapoints
N [°]	1225 Number of slopes
S var(S)	-0.0092 Median slope (Sen's slope estimate)
M1	514 172 Rank M1
Q(514.172)	-0.0164 Lower confidence level of slopes
M2	710.828 Rank M2
Q(710.828)	-0.0027 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	50 Number of datapoints
S Vor(S)	-263 Mann Kendall test statistic
var(5) 7 $z(1-5)$	14291.07 Vallance
∠, ∠(1-a) Probability	0.0142 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
	- ,

Station	5312H01
Sen's test	
n	103 Number of datapoints
N'	5253 Number of slopes
S	0.0071 Median slope (Sen's slope estimate)
var(S)	123151.7 variance of S
M1	2337.86 Rank M1
Q(2337.86)) 0.0056 Lower confidence level of slopes
M2	2915.14 Rank M2
Q(2915.14)	0.0088 Upper confidence level of slopes
Result	Hypothesis of increasing trend accepted
	Hypothesis of decreasing trend rejected
Mann-Kend	dall test
n	103 Number of datapoints
S	2421 Mann Kendall test statistic
Var(S)	123151.7 Variance
Z, z(1-a)	6.896, 1.64 Normal approximation
Probability	0 Probability associated with S for
Result	Hypothesis of increasing trend accepted
	Hypothesis of decreasing trend rejected
Station	5315L01
Sen's test	
n	43 Number of datapoints
N'	903 Number of slopes
S	-0.0156 Median slope (Sen's slope estimate)
var(S)	9130.333 variance of S
M1	372.9078 Rank M1
Q(372.9078	8 -0.0183 Lower confidence level of slopes
M2	530.0922 Rank M2
Q(530.0922	2 -0.0125 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kend	dall test
n	43 Number of datapoints
S	-546 Mann Kendall test statistic
Var(S)	9130.333 Variance
Z, z(1-a)	-5.7037, 1. Normal approximation
Probability	0 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Station	5322A01
Sen's test	
n	56 Number of datapoints
N'	1540 Number of slopes
S	-0.0175 Median slope (Sen's slope estimate)
var(S)	20019 variance of S
M1	653.6257 Rank M1
Q(653.6257	7 -0.0218 Lower confidence level of slopes
M2	886.3743 Rank M2
Q(886.3743	-0.0127 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kend	dall test
n	56 Number of datapoints
S	-779 Mann Kendall test statistic
Var(S)	20019 Variance
Z, z(1-a)	-5.4987, 1. Normal approximation
Probability	0 Probability associated with S for
Probability Result	0 Probability associated with S for Hypothesis of increasing trend rejected

Station	5517D05
Sen's test	
n	60 Number of datapoints
N'	1770 Number of slopes
S	-0.0052 Median slope (Sen's slope estimate)
var(S)	24582 33 variance of S
M1	756 0422 Book M1
Q(756.0422)	-0.0079 Lower confidence level of slopes
M2	1013.958 Rank M2
Q(1013.958)	-0.003 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	60 Number of datapoints
S	-573 Mann Kendall test statistic
Var(S)	24582 33 Variance
$7_{7}(1-2)$	-3 6482 1 Normal approximation
$\Sigma, \Sigma(1-\alpha)$	0.0001 Probability accessized with S for
Probability	U.0001 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Station	5518R01
Sen's test	
n	60 Number of datapoints
N'	1770 Number of slopes
S	-0.0115 Median slope (Sen's slope estimate)
var(S)	24583.33 variance of S
M1	756.0396 Rank M1
Q(756.0396)	-0.0161 Lower confidence level of slopes
M2	1013.96 Rank M2
Q(1013.96)	-0.0066 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
Result	Hypothesis of decreasing trend accepted
Mann Kondoll	tost
	CO Number of detensints
n	50 Number of datapoints
5	-574 Mann Kendali test statistic
var(S)	24583.33 Variance
Z, z(1-a)	-3.6546, 1. Normal approximation
Probability	0.0001 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Station	6211K01
Sen's test	
n	47 Number of datapoints
N'	1081 Number of slopes
S	-0.0059 Median slope (Sen's slope estimate)
var(S)	11889 variance of S
M1	450 8173 Rank M1
$\Omega(450.8173)$	-0.008 Lower confidence level of slopes
Q(400.0170)	620 1927 Dopk M2
IVIZ	0.0046 Upper confidence level of clopes
Q(630.1827)	-0.0046 Opper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	47 Number of datapoints
S	-570 Mann Kendall test statistic
Var(S)	11889 Variance
Z, z(1-a)	-5.2184, 1. Normal approximation
Probability	0 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
	,,

Station	5322A03	
Sen's test		
n	53 Number of datapoints	
N'	1378 Number of slopes	
S	-0.0194 Median slope (Sen's slope estin	nate)
var(S)	16995.33 variance of S	,
M1	581.7739 Rank M1	
Q(581.7739	-0.0227 Lower confidence level of slope	s
M2	, 796.2261 Rank M2	
Q(796.226 ²	-0.016 Upper confidence level of slope	s
Result	Hypothesis of increasing trend rejected	
	Hypothesis of decreasing trend accepted	
Mann-Kend	all test	
n	53 Number of datapoints	
S	-792 Mann Kendall test statistic	
Var(S)	16995 33 Variance	
7 7(1-2)	-6.0675 1 Normal approximation	
Probability	0 Probability associated with S for	r
Result	Hypothesis of increasing trend rejected	
Result	Hypothesis of decreasing trend accented	
Station	5322F01	
Sen's test	··· • ·	
n	98 Number of datapoints	
N'	4753 Number of slopes	
S	-0.0081 Median slope (Sen's slope estin	nate)
var(S)	106150 3 variance of S	lato)
M1	2108 524 Rank M1	
O(2108.52)	-0.0125 Lower confidence level of slope	c
M2	2644 476 Rank M2	0
$\Omega(2644.476)$	-0.0046 Upper confidence level of slope	\$
Result	Hypothesis of increasing trend rejected	0
Rebuit	Hypothesis of decreasing trend accented	
Mann-Kenc	all test	
n	98 Number of datapoints	
S	-1176 Mann Kendall test statistic	
Var(S)	106150.3 Variance	
7 - 7(1-a)	-3 6064 1 Normal approximation	
Prohability	0.0002 Probability associated with S for	r
Result	Hypothesis of increasing trend rejected	
rtooun	Hypothesis of decreasing trend accepted	
Station	53230E01	
Sen's test	00200201	
n	37 Number of datapoints	
N'	666 Number of slopes	
S	-0.04 Median slope (Sen's slope estin	nate)
var(S)	5846 variance of S	
M1	270.1124 Rank M1	
Q(270 1124	-0.0535 Lower confidence level of slope	s
M2	395 8876 Rank M2	-
0(395 8876	-0 0272 Upper confidence level of slope	s
Result	Hypothesis of increasing trend rejected	0
NEGUIL	Hypothesis of decreasing trend accepted	
Mann-Kong	all test	
n	37 Number of datapoints	
 S	-301 Mann Kendall toet statistic	
$\sqrt{2r(C)}$	-501 Manin Kenuali lest statistic 58/6 Varianco	
$7 \pi(1 \circ)$	-3 0227 1 Normal approximation	
Z, Z(1-a)	-3.9237, 1. NORMAI APPROXIMATION	
Propability	U FIODADIIILY ASSOCIATED WITH S TOI	
Result	Hypothesis of degreesing trend rejected	
	mypomesis of decreasing trend accepted	

Station	6320D01
Sen's test	
n	40 Number of datapoints
N'	780 Number of slopes
S	-0.0022 Median slope (Sen's slope estimate)
var(S)	7363 667 variance of S
Var(0)	210 4109 Popk M1
NI I 0/210 4109)	0.0041 Lower confidence lovel of clance
Q(319.4196)	-0.0041 Lower confidence level of slopes
	460.5802 RAIK M2
Q(460.5802)	U Opper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	40 Number of datapoints
S	-155 Mann Kendall test statistic
Var(S)	7363.667 Variance
Z, z(1-a)	-1.7946, 1. Normal approximation
Probability	0.0364 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Station	6327N04
Sen's test	
n	34 Number of datapoints
N'	561 Number of slopes
S	-0.0178 Median slope (Sen's slope estimate)
var(S)	4550.333 variance of S
M1	225.0173 Rank M1
Q(225.0173)	-0.0365 Lower confidence level of slopes
M2	335.9827 Rank M2
Q(335.9827)	-0.0024 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
. looun	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	34 Number of datapoints
S	-141 Mann Kendall test statistic
Var(S)	4550 333 Variance
$7_{7(1-2)}$	-2 0754 1 Normal approximation
Z, Z(1-a) Probability	0.019 Probability associated with S for
Pocult	Hypothesis of increasing trend rejected
Result	Hypothesis of decreasing trend accepted
Station	
Station Sen's test	6328HU1
	54 Number of detensints
n'	1421 Number of clopes
	1451 NUMBER OF SIOPES
5	-0.0004 Median slope (Sen's slope estimate)
var(S)	17965 Variance of S
	005.2574 KANK M1
Q(605.2574)	-U.UU5 Lower confidence level of slopes
M2	825.7426 Rank M2
Q(825.7426)	0.0026 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	54 Number of datapoints
S	-44 Mann Kendall test statistic
Var(S)	17965 Variance
Z, z(1-a)	-0.3208, 1. Normal approximation
Probability	0.3742 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected

<u>Station</u>	5324G01
Sen's test	
n	110 Number of datapoints
N'	5995 Number of slopes
S	-0.005 Median slope (Sen's slope estimate)
var(S)	149874 variance of S
M1	2679 081 Rank M1
O(2679.08)	-0.009 Lower confidence level of slopes
M2	3315 919 Rank M2
$\Omega(3315.01)$	-0.0006 Lipper confidence level of slopes
Result	Hypothesis of increasing trend rejected
Result	Hypothesis of hicreasing trend rejected
Mann-Kong	all tost
n n	110 Number of detenointe
11 C	740 Mann Kandall test statistic
var(S)	149874 Variance
Z, Z(1-a)	-1.9089, 1. Normal approximation
Probability	0.0281 Probability associated with S for
Result	Hypothesis of increasing trend rejected
01-11	Hypothesis of decreasing trend accepted
Station	5404A01
Sen's test	
n	11 Number of datapoints
N'	55 Number of slopes
S	0.0013 Median slope (Sen's slope estimate)
var(S)	163 variance of S
M1	16.999 Rank M1
Q(16.999)	-0.0023 Lower confidence level of slopes
M2	38.001 Rank M2
Q(38.001)	0.005 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kend	all test
n	11 Number of datapoints
S	15 Mann Kendall test statistic
Var(S)	163 Variance
Z, z(1-a)	1.0966, 1.6 Normal approximation
Probability	0.1364 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Station	5405K01
Sen's test	
n	29 Number of datapoints
N'	406 Number of slopes
S	-0.0043 Median slope (Sen's slope estimate)
var(S)	2842 variance of S
M1	159.1522 Rank M1
Q(159 152	-0.0186 Lower confidence level of slopes
M2	246 8478 Rank M2
0(246 8479	0 0075 Inner confidence level of slopes
Result	Hypothesis of increasing trend rejected
NESUIL	Hypothesis of decreasing trend rejected
Mann Kong	all tost
wann-Kenc	all lest
11	29 Number of datapoints
5	-27 IVIANN KENGAII TEST STATISTIC
var(S)	2842 Variance
∠, z(1-a)	-0.48/7, 1. Normal approximation
Probability	0.3129 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected

Station	6330J01
Sen's test	
n	39 Number of datapoints
N'	741 Number of slopes
S	-0.0083 Median slope (Sen's slope estimate)
var(S)	6833.667 variance of S
M1	302.5072 Rank M1
Q(302.5072)	-0.0127 Lower confidence level of slopes
M2	438.4928 Rank M2
Q(438.4928)	-0.0048 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendali	test
n	39 Number of datapoints
J Vor(S)	-204 Marin Kendan lesi statistic
Var(3) 7 $z(1-3)$	-3 1815 1 Normal approximation
Z, Z(1-a) Probability	0.0007 Probability associated with S for
Result	Hypothesis of increasing trend rejected
Result	Hypothesis of decreasing trend accepted
Station	6331.J01
Sen's test	
n	34 Number of datapoints
N'	561 Number of slopes
S	-0.0069 Median slope (Sen's slope estimate)
var(S)	4550.333 variance of S
M1	225.0173 Rank M1
Q(225.0173)	-0.0088 Lower confidence level of slopes
M2	335.9827 Rank M2
Q(335.9827)	-0.005 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	34 Number of datapoints
S Vor(S)	4550 222 Variance
var(3)	2 6012 1 Normal approximation
Z, Z(1-a) Probability	0 0001 Probability associated with S for
Result	Hypothesis of increasing trend rejected
Result	Hypothesis of decreasing trend accepted
Station	6436N01
Sen's test	
n	14 Number of datapoints
N'	91 Number of slopes
S	0.0327 Median slope (Sen's slope estimate)
var(S)	333.6667 variance of S
M1	30.4758 Rank M1
Q(30.4758)	-0.22 Lower confidence level of slopes
M2	60.5242 Rank M2
Q(60.5242)	0.1633 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
Mana Kasal II	Hypothesis of decreasing trend rejected
Mann-Kendali	test
n 0	14 NUMBER OF DATAPOINTS
J Var(S)	333 6667 Variance
7 = 7(1-2)	0.0007 Valialle
r_{1} , r_{1} , r_{2}	0.4133 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected

<u>Station</u>	5407C01	
Sen's test		
n	24	Number of datapoints
N'	276	Number of slopes
S	0.0296	Median slope (Sen's slope estimate)
var(S)	1625.333	variance of S
M1	104 8406	Rank M1
O(104 840	0.0153	I ower confidence level of slopes
M2	171 1594	Rank M2
$\Omega(171 \ 150)$	4 0.0431	Lipper confidence level of slopes
Result	Hypothesis	of increasing trend accented
Result	Hypothosis	of decreasing trend rejected
Mann Kong	All toot	of decreasing trend rejected
		Number of detensints
11	24	Number of datapoints
5	130	
var(S)	1625.333	variance
∠, z(1-a)	3.1998, 1.6	Normal approximation
Probability	0.0007	Probability associated with S for
Result	Hypothesis	or increasing trend accepted
.	Hypothesis	ot decreasing trend rejected
Station	5408N01	
Sen's test		
n	71	number of datapoints
N [°]	2485	Number of slopes
S	-0.0069	Median slope (Sen's slope estimate)
var(S)	40586.33	variance of S
M1	1076.799	Rank M1
Q(1076.799	-0.0089	Lower confidence level of slopes
M2	1408.201	Rank M2
Q(1408.20	1 -0.0045	Upper confidence level of slopes
Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend accepted
Mann-Kend	dall test	
n	71	Number of datapoints
S	-913	Mann Kendall test statistic
Var(S)	40586.33	Variance
Z, z(1-a)	-4.5269, 1.	Normal approximation
Probability	0	Probability associated with S for
Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend accepted
Station	5409C02	
Sen's test		
n	26	Number of datapoints
N'	325	Number of slopes
S	0.0025	Median slope (Sen's slope estimate)
var(S)	2058.333	variance of S
M1	125.1841	Rank M1
Q(125,184	1 -0.0032	Lower confidence level of slopes
M2	199 8159	Rank M2
Q(199 8159	0.0053	Upper confidence level of slopes
Result	Hypothesis	of increasing trend rejected
Result	Hypothesis	of decreasing trend rejected
Mann-Kong	Aall tast	
n n	all lest	Number of datapoints
() C	∠b 44	Mann Kondoll toot atotictic
S Vor(C)	41	
var(S)	2058.333	vanance
∠, z(1-a)	0.8817, 1.6	Normal approximation
Probability	0.189	Probability associated with S for
Result	Hypothesis	or increasing trend rejected
	Hypothesis	of decreasing trend rejected

Station	6524R01
Sen's test	
n	40 Number of datapoints
N'	780 Number of slopes
S	-0.0076 Median slope (Sen's slope estimate)
var(S)	7366.667 variance of S
M1	319.4054 Rank M1
Q(319.4054)	-0.0164 Lower confidence level of slopes
M2	460.5946 Rank M2
Q(460.5946)	0.0004 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	40 Number of datapoints
S	-133 Mann Kendall test statistic
Var(S)	7366.667 Variance
Z. z(1-a)	-1.5379. 1. Normal approximation
Probability	0.062 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Station	6525R01
Sen's test	
n	48 Number of datapoints
N'	1128 Number of slopes
S	-0.0054 Median slope (Sen's slope estimate)
var(S)	12658.67 variance of S
M1	471.4599 Rank M1
Q(471.4599)	-0.0075 Lower confidence level of slopes
M2	656.5401 Rank M2
Q(656.5401)	-0.0035 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Mann-Kendall	test
n	48 Number of datapoints
S	-448 Mann Kendall test statistic
Var(S)	12658.67 Variance
Z, z(1-a)	-3.973, 1.6 Normal approximation
Probability	0 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend accepted
Station	6631M04
Sen's test	70 Number of datas sists
n Ni	72 Number of datapoints
N [°]	2556 Number of slopes
5	-0.0004 Miedian slope (Sen's slope estimate)
var(S)	42314 Variance of S
M1 O(1100.000)	1108.809 Rank M1
Q(1108.809)	-0.0017 Lower confidence level of slopes
MZ	1447.191 Rank MZ
Q(1447.191)	Use the sign of increasing trend rejected
Result	Hypothesis of increasing trend rejected
Mann Kondoll	hypothesis of decreasing trend rejected
n	72 Number of datapoints
11 S	-114 Mann Kondall tost statistic
$V_{ar}(S)$	
$7_{7}(1_{2})$	-0.5/03 1 Normal approximation
$rac{2}{2}, rac{1}{3}$	0.2014 Prohability accordated with S for
Result	Hypothesis of increasing trand rejected
i leouit	Hypothesis of decreasing trend rejected
	Typotholio of doorodoling trond rejected

Station	5411R02	
Sen's test		
n	47	Number of datapoints
N'	1081	Number of slopes
S	-0.0055	Median slope (Sen's slope estimate)
var(S)	11890	variance of S
M1	450.8135	Rank M1
Q(450.8135	-0.0074	Lower confidence level of slopes
M2	630.1865	Rank M2
Q(630.1865	-0.0034	Upper confidence level of slopes
Result	Hypothesis	s of increasing trend rejected
	Hypothesis	s of decreasing trend accepted
Mann-Kend	all test	
n	47	Number of datapoints
S	-418	Mann Kendall test statistic
Var(S)	11890	Variance
Z, z(1-a)	-3.8242, 1.	Normal approximation
Probability	0.0001	Probability associated with S for
Result	Hypothesis	of increasing trend rejected
	Hypothesis	of decreasing trend accepted
Station	5411R03	
Sen's test		
n	49	Number of datapoints
N'	1176	Number of slopes
S	-0.0051	Median slope (Sen's slope estimate)
var(S)	13458.67	variance of S
M1	492.5805	Rank M1
Q(492.5805	-0.0076	Lower confidence level of slopes
M2	683.4194	Rank M2
Q(683.4194	-0.0026	Upper confidence level of slopes
Result	Hypothesis	s of increasing trend rejected
	Hypothesis	s of decreasing trend accepted
Mann-Kend	all test	
n	49	Number of datapoints
S	-367	Mann Kendall test statistic
Var(S)	13458.67	Variance
Z, z(1-a)	-3.1549, 1.	Normal approximation
Probability	0.0008	Probability associated with S for
Result	Hypothopic	of increasing trend rejected
	nypomesis	of increasing trend rejected

Station	6631M07
Sen's test	
n	49 Number of datapoints
N'	1176 Number of slopes
S	-0.0014 Median slope (Sen's slope estimate)
var(S)	13457.67 variance of S
M1	492.5841 Rank M1
Q(492.5841)	-0.0046 Lower confidence level of slopes
M2	683.4159 Rank M2
Q(683.4159)	0.001 Upper confidence level of slopes
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Mann-Kendall	test
n	49 Number of datapoints
S	-135 Mann Kendall test statistic
Var(S)	13457.67 Variance
Z, z(1-a)	-1.1551, 1. Normal approximation
Probability	0.124 Probability associated with S for
Result	Hypothesis of increasing trend rejected
	Hypothesis of decreasing trend rejected
Station	5411R04
Station Sen's test	5411R04
Station Sen's test n	48 Number of datapoints
Station Sen's test n N'	48 Number of datapoints 1128 Number of slopes
Sen's test n N' S	48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate)
Sen's test n N' S var(S)	48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S
Sen's test n N' S var(S) M1	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1
Station Sen's test N S var(S) M1 Q(471.4599)	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes
Sen's test n N' S var(S) M1 Q(471.4599) M2	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2
Station Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401)	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes
Station Sen's test N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected
Station Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected
Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test
Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall n	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test 48 Number of datapoints
Station Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall n S	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test 48 Number of datapoints -59 Mann Kendall test statistic
Station Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall n S Var(S)	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test 48 Number of datapoints -59 Mann Kendall test statistic 12658.67 Variance
Station Sen's test N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall n S Var(S) Z, z(1-a)	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test 48 Number of datapoints -59 Mann Kendall test statistic 12658.67 Variance -0.5155, 1. Normal approximation
Station Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall n S Var(S) Z, z(1-a) Probability	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test 48 Number of datapoints -59 Mann Kendall test statistic 12658.67 Variance -0.5155, 1. Normal approximation 0.3031 Probability associated with S for
Station Sen's test n N' S var(S) M1 Q(471.4599) M2 Q(656.5401) Result Mann-Kendall n S Var(S) Z, z(1-a) Probability Result	5411R04 48 Number of datapoints 1128 Number of slopes -0.0012 Median slope (Sen's slope estimate) 12658.67 variance of S 471.4599 Rank M1 -0.0062 Lower confidence level of slopes 656.5401 Rank M2 0.0025 Upper confidence level of slopes Hypothesis of increasing trend rejected Hypothesis of decreasing trend rejected test 48 Number of datapoints -59 Mann Kendall test statistic 12658.67 Variance -0.5155, 1. Normal approximation 0.3031 Probability associated with S for Hypothesis of increasing trend rejected