Report to The International Joint Commission

-1927-

WATER SURVEY OF CANADA
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R E P O R T T O

THE INTERNATIONAL JOINT COMMISSION

- 1927 -

REPORT TO THE INTERNATIONAL JOINT COMMISSION

- on -

THE DIVISION AND USE MADE OF THE WATERS OF

ST. MARY AND MILK RIVERS

- by -

J.T.JOHNSTON

representing Canada

- and -

GEORGE OTIS SMITH

representing the United States.

The honourable, The International Joint Commission,
Washington, D.C. and Ottawa, Ontario.

Gentlemen:-

In compliance with the provisions of Clause 10 of your order of the 4th of October, 1921, directing the division of the waters of the St. Mary and Milk Rivers between the United States and Canada, we are transmitting herewith a report on the operations during the irrigation season of 1927.

Respectfully submitted,

Accredited Irrigation Officer of His Majesty.

Accredited Reclamation Officer of the United States.

Dated: 3rd April, 1928.

INTRODUCTION

The field work incidental to the division and administration of the waters of the St. Mary and Milk rivers in Alberta, Saskatchewan and Montana during the irrigation season of 1927 was conducted by the same engineers as in previous years.

Dr. Elwood Mead, Commissioner of the United States Bureau of Reclamation, as accredited officer for the United States, was represented in the field by Mr. H. H. Johnson, Project Manager, Malta, Montana, Mr. J.T.Johnston, Director, Dominion Water Power and Reclamation Service, as accredited officer for His Majesty, was represented by Mr. S. G. Dawson.

The water of the two rivers was divided between the two countries in accordance with the Order of the Commission dated in Ottawa, Canada, on 4th day of October 1921.

The hydrometric data, on which this report is based, were obtained in Montana, by engineers of the United States Geological Survey under the direct personal supervision of Mr. W. A. Lamb, District Engineer, Helena, Montana; while those from streams and ditches in Canada were collected under the supervision of the Commissioner of Irrigation, Dominion Water Power and Reclamation Service, Calgary, Alberta. The international gauging stations were visited frequently by representatives of both countries.

As the natural flow of St. Mary river remained above the combined capacity of the two canals diverting therefrom until the end of July, when the peak of demand had passed, the usual weekly schedule showing the use made of the waters was only issued during August. The heavy precipitation during the growing season, both in Montana and Alberta, so lowered the demand for

diverted water that at all times, the respective shares of St. Mary river were sufficient to satisfy the requirements of both countries.

DIVISION OF WATER

As the loss between the intake of the United States St. Mary Canal and the canal crossing the St. Mary river, which this year was 16% of the water diverted at the headgates, is assumed to return directly to the river and eventually become available to Canada, the discharge of 50,300 acre-feet in the canal at the St. Mary Crossing during the period of operation between June 22 and September 3, is considered as the actual quantity diverted from St. Mary river by the United States.

Fifty-three thousand two hundred acre feet of St.Mary river water were delivered to the Milk river and became available for irrigation in Montana. The 2900 acre-feet increase between St. Mary crossing and the outlet of the canal is due to the inflow from the area bordering on the canal.

The Sherburne reservoir was used more as a stabilizer to control the flood waters in June than for storage, although 16,300 acre-feet of the winter flow of Swiftcurrent was held in storage until the end of April. As the season progressed it became evident that the natural flow of the St. Mary river would suffice the requirements of both countries, consequently the storage of water was unnecessary.

The natural flow of Milk river is considered as being delivered to the United States at Eastern Crossing as there were no diversions from the stream in Canada during 1927.

The total recorded flow passing across the International boundary from the northern tributaries of Milk river was 499,000 acre-feet.

The Canadian Pacific Railway canal at Kimball diverted 123,000 acre-feet from the St. Mary river during the period of operation from April 26 to October 7, to irrigate lands in the Lethbridge section and the Taber extension.

Because of the abundant rains in Saskatchewan during the irrigation season, very little water was diverted in Canada from the northern tributaries of Milk river. Canadian irrigators diverted 197 acre-feet from Lodge Creek; 272 acre-feet from Battle Creek and 279 from Frenchman river. There was no diversion in Canada from Rock and Whitewater creeks nor from any of the several other minor northern tributaries of Milk river.

The proper share due each country from the St. Mary river as defined by your Order of the 4th of October, 1921, was determined by making current meter measurements of the discharge from the headwaters of St. Mary river, computing the inflow to and the outflow from the Sherburne reservoir, the quantity diverted by the St. Mary canal and the quantity delivered to Canada at the international boundary. From these measurements and calculations the natural flow of St. Mary river was computed and the share to which each country was entitled determined on the following basis;-

(1) When the natural flow of St. Mary river was less than 666 cubic feet per second, Canada was entitled to three quarters of that flow and the United States to one quarter.

(2) When the natural flow was greater than 666 cubic feet per second, Canada was entitled to 500 cubic feet per second, plus one-half of the increase over 666 cubic feet per second, and the United States was entitled to the remainder.

WATER SUPPLY.

The precipitation on the drainage basins of St. Mary and Milk rivers during the winter of 1926-27 was considerably above

normal. The annual international snow survey on the headwaters of Swiftcurrent Creek, a large tributary to St. Mary river, indicated a run-off during May, June and July from the area equivalent to that of 1925. The exceedingly heavy rains during May and June so increased the run-off from the St. Mary Basin that during the irrigation season of 1927, it was 150% of the 24 year average and the second highest annual flow from the river for the years of record. While the river did not reach a new maximum discharge, the duration of the high flow was increased and the river did not fall below 1000 cubic feet per second until the end of August.

The inflow to Milk river during 1927 from its northern tributaries in Saskatchewan was double the average flow and larger than any year on record. The discharge from Lodge Creek at the international boundary was the largest in 17 years records, that from Battle creek, the largest in 11 years and the flow in Frenchman River was only slightly lower than that of 1916, the maximum in 13 years.

The fifteen international gauging stations previously used in the determination of the daily flow of the streams in the St. Mary and Milk river basins were maintained and operated under the joint supervision of the field engineers. Eight additional gauging stations were established in 1927 at the international boundary to record the flow from Saskatchewan in the minor northern tributaries of Milk river.

Canada maintained the same stations as in previous years on international streams and canals diverting therefrom in Canada, and from the records obtained from these stations can be determined the use made of the international water.

An appendix to this report gives the results of current meter measurements, the daily gauge heights and discharge

at all the gauging stations operated in the two drainage basins during 1927.

DESCRIPTION OF TABLES.

The tables following have been prepared to summarize the data on the division and use made of the waters in the two basins.

Table No. 1 shows the method used to determine the natural flow of the St. Mary river during the irrigation season, the water available for use and used by the United States and the water available and diverted by Canada.

There are four pages for each month in this table, although the month of October has been omitted as the complete data is not yet available.

Page 1. (water stored or released from Sherburne Reservoir) shows the daily inflow to and outflow from Sherburne reservoir. The difference gives the quantity of water stored or released from storage. On this sheet the unrecorded inflow is determined by comparison with the recorded flows in Swiftcurrent and Canyon creeks and with the use of the storage curve of Sherburne reservoir to give the gain or loss in storage. This estimate is put in the column headed "unrecorded inflow".

Page 2. (Determination of the natural flow of St. Mary river) shows the actual flow of St. Mary river, the quantity of water diverted, stored or released from storage by the United States and the natural flow of St. Mary river, or that flow which would have crossed the international boundary had there been no interference. It has been established that two days are required for stored water released from Sherburne reservoir to influence the flow at the international boundary

consequently a two day lag has been applied on this page.

Page 3. (Water available for use and used by the United States) shows the water available for use by the United States under the ruling of the order of October 4th, 1921, the water diverted and the excess or deficiency of this quantity over the quantity available.

Page 4. (Water available for use and used by Canada) shows the natural flow of St. Mary river at Kimball, which is near the international boundary, Canada's share by the ruling of the Commission, the actual discharge near the boundary, which is the quantity available for use by Canada. The quantity used by Canada and the excess or deficiency of the quantity received by Canada as compared with the share.

Table No. 2 is a statement showing the quantity of water taken in each month by each country and the quantity thereof applied to the land; the quantity of water diverted from the St. Mary river, that stored or held back by either country, and the loss in the canals and reservoirs.

Table No. 3 gives the available data on the diversions from the principal northern tributaries of Milk river and the quantity which crossed the boundary into the United States.

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
WATER STORED OR RELEASED FROM SHERBURNE RESERVOIR
APRIL - 1927

Day	INFLOW TO SHERBURNE RESERVOIR: Recorded Inflow: Swift-current Creek	Canyon Creek	Un-recorded Inflow Estimated	Total Inflow	Outflow Swiftcurrent at Sherburne	Stored in Reservoir Sec.ft.	Released from Reservoir Sec.ft.
1							
2							
3							
4							
5							
6							
7						No storage	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17	No record available	No record available	No record available	No record available	No record available	210	No release
18						185	
19						160	
20						136	
21						100	
22						150	
23						182	
24						305	
25						535	
26						690	
27						755	
28						297	
29						-	480
30						-	655
Total Sec.ft.						3705	1135
Mean						309	568
Ac.ft.						7350	2250

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
APRIL - 1927

Day	St.Mary River at Kimball	Diverted by U.S.B.R.	Stored by U.S.B.R.	Total in Sec-ft.	Stored Water Released	Natural flow St. Mary River
1	161	No water diverted during April		161	No stored water released during April	161
2	161			161		161
3	161			161		161
4	158			158		158
5	153			153		153
6	148			148		148
7	143			143		143
8	138			138		138
9	133			133		133
10	128			128		128
11	122			122		122
12	138			138		138
13	156			156		156
14	170			170		170
15	349			349		349
16	636			636		636
17	918			918		918
18	943			943		943
19	271		210	481		481
20	271		185	456		456
21	279		160	439		439
22	271		136	407		407
23	291		100	391		391
24	279		150	429		429
25	1000		182	1182		1182
26	1040		305	1345		1345
27	1000		535	1535		1535
28	1190		690	1880		1880
29	1550		755	2305		2305
30	1940		297	2237		2237
Total Sec.ft.	14298		3705	18003		18003
Mean	477		309	600		600
Ac.ft.	28360		7350	35710		35710

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY UNITED STATES
April - 1927

Day	Natural Flow St.Mary River	AVAILABLE FOR USE BY U.S.A. U.S. Share	Released from Storage	Total Available	USED BY U.S.A. Diverted	Stored	Total Used	Excess Of Share	Deficiency Used
1	161	40	No stored water released during April	40	No water diverted during April				40
2	161	40		40					40
3	161	40		40					40
4	158	40		40					40
5	153	38		38					38
6	148	37		37					37
7	143	36		36					36
8	138	35		35					35
9	133	33		33					33
10	128	32		32					32
11	122	30		30					30
12	138	35		35					35
13	156	39		39					39
14	170	42		42					42
15	349	87		87					87
16	636	159		159					159
17	918	292		292					292
18	943	305		305					305
19	481	120		120		210	210	90	-
20	456	114		114		185	185	71	-
21	439	110		110		160	160	50	-
22	407	102		102		136	136	34	-
23	391	98		98		100	100	2	-
24	429	107		107		150	150	43	-
25	1182	424		424		182	182	-	242
26	1345	506		506		305	305		201
27	1535	601		601		535	535		66
28	1880	773		773		690	690		83
29	2305	986		986		755	755		231
30	2237	952		952		297	297		655
Total Sec.ft.	18003	6253		6253		3705	3705	290	2838
Mean	600	208		208		309	309	9.6	95
Ac.Ft.	35710	12400		12400		7350	7350	570	5630

Q: Is this the should not be the mean for the month

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY CANADA
APRIL - 1927

Day	Natural flow St. Mary R. at Kimball.	Canada's Share	St. Mary R. at Kimball.	Diverted by Canada	Excess of share	- Deficiency delivered
1	161	121	161		40	
2	161	121	161		40	
3	161	121	161		40	
4	158	118	158		40	
5	153	115	153		38	
6	148	111	148		37	
7	143	107	143		36	
8	138	103	138		35	
9	133	100	133		33	
10	128	96	128		32	
11	122	92	122		30	
12	138	103	138		35	
13	156	117	156		39	
14	170	128	170		42	
15	349	262	349		87	
16	636	477	636		159	
17	918	626	918		292	
18	943	638	943		305	-
19	481	361	271		-	90
20	456	342	271		-	70
21	439	329	279		-	50
22	407	305	271		-	34
23	391	293	291		-	2
24	429	322	279		-	43
25	1182	758	1000		242	-
26	1345	839	1040	41	201	-
27	1535	934	1000	58	66	-
28	1880	1107	1190	114	83	-
29	2305	1319	1550	198	231	-
30	2237	1285	1940	206	655	-
Total Sec.ft.	18003	11750	14298	617	2838	290
Mean	600	392	477	123	95	9.6
Ac.Ft.	35710	23310	28360	1220	5630	570

U.S. only not monthly mean

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
WATER STORED OR RELEASED FROM SHERBURNE RESERVOIR
MAY - 1927

Day	INFLOW TO SHERBURNE RESERVOIR: Recorded Inflow: Swift-current Creek	Canyon Creek	Un-recorded Inflow Estimated	Total Inflow	Outflow Swiftcurrent at Sherburne	Stored in Reservoir Sec.ft.	Released from Reservoir Sec.ft.
1	165	14	280	459	1170	-	711
2	160	14	279	453	1170	-	717
3	156	14	400	570	1170	-	600
4	152	14	200	366	360	6	-
5	133	14	157	304	360	-	56
6	121	14	130	265	249	16	-
7	101	14	95	210	206	4	-
8	85	14	80	179	206	-	27
9	74	13	72	159	206	-	47
10	76	13	60	149	205	-	56
11	94	14	55	163	176	-	13
12	128	19	75	222	149	73	-
13	183	24	105	312	150	162	-
14	281	35	160	476	199	277	-
15	398	55	230	683	389	294	-
16	710	126	426	1262	723	539	-
17	806	115	470	1391	1020	371	-
18	576	62	326	964	1210	-	246
19	414	47	235	696	1310	-	614
20	338	41	194	573	1340	-	767
21	272	33	200	505	1220	-	715
22	227	27	167	421	762	-	341
23	186	24	138	348	662	-	314
24	209	31	158	398	389	9	-
25	287	40	216	543	306	237	-
26	379	48	282	709	309	400	-
27	392	45	288	725	222	503	-
28	354	40	260	654	178	476	-
29	344	36	250	630	260	370	-
30	306	33	224	563	557	6	-
31	254	29	186	469	762	-	293
Total Sec.ft.	8361	1062	6398	15821	17595	3743	5517
Mean	270	34.3	206	510	568	121	178
Ac.ft.	16600	2110	12690	31400	34900	7440	10940

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
May - 1927.

Day	St.Mary River at Kimball	Diverted by U.S.B.R.	Stored by U.S.B.R.	Total in Sec. ft.	Stored Water Released	Natural Flow St.Mary River
1	2280			2280	480	1800
2	2390			2390	655	1735
3	2370			2370	711	1659
4	2030			2030	717	1313
5	1810			1810	600	1210
6	1640		6	1646	-	1646
7	1450		-	1450	56	1394
8	1360		16	1376	-	1376
9	1300		4	1304	-	1304
10	1320		-	1320	27	1293
11	1340		-	1340	47	1293
12	1290		-	1290	56	1234
13	1230		-	1230	13	1217
14	1230		73	1303	-	1303
15	1310		162	1472	-	1472
16	1670		277	1947	-	1947
17	2260		294	2554	-	2554
18	2820		539	3359	-	3359
19	3440		371	3811	-	3811
20	4020		-	4020	246	3774
21	4250		-	4250	614	3636
22	4230		-	4230	767	3463
23	4020		-	4020	715	3305
24	4360		-	4360	341	4019
25	4340		-	4340	314	4026
26	4120		9	4129	-	4129
27	3700		237	3937	-	3937
28	3540		400	3940	-	3940
29	5300		503	5803	-	5803
30	4570		476	5046	-	5046
31	4860		370	5230	-	5230
Total Sec.ft.	85850		3737	89587	6359	83228
Mean	2770		121	2890	205	2685
Ac.ft.	170000		7400	177400	12600	164800

No water diverted during May

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY UNITED STATES
May - 1927

Day	Natural Flow St.Mary River	AVAILABLE FOR USE BY U.S.A. U.S. Share	Released from Storage	Total Available	USED BY U.S.A. Diverted	Stored	Total Used	Excess Of Share	Deficiency Used
1	1800	733	480	1213	No water diverted during May	-		No excess of share used in May	1213
2	1735	701	655	1356		-			1356
3	1659	663	711	1374		-			1374
4	1313	490	717	1207		-			1207
5	1210	438	600	1038		-			1038
6	1646	656	-	656		6	6		650
7	1394	530	56	586		-	-		586
8	1376	521	-	521		16	16		505
9	1304	485	-	485		4	4		481
10	1293	480	27	507		-	-		507
11	1293	480	47	527		-	-		527
12	1234	450	56	506		-	-		506
13	1217	441	13	454		-	-		454
14	1303	484	-	484		73	73		411
15	1472	569	-	569		162	162		407
16	1947	807	-	807		277	277		530
17	2554	1110	-	1110		294	294		816
18	3359	1513	-	1513		539	539		974
19	3811	1738	-	1738		371	371		1367
20	3774	1720	246	1966		-			1966
21	3636	1651	614	2265		-			2265
22	3463	1564	767	2331		-			2331
23	3305	1486	715	2201		-			2201
24	4019	1843	341	2184		-			2184
25	4026	1846	314	2160		-			2160
26	4129	1898	-	1898		9	9		1889
27	3937	1802	-	1802		237	237		1565
28	3940	1803	-	1803		400	400		1403
29	5803	2735	-	2735		503	503		2232
30	5046	2356	-	2356		476	476		1880
31	5230	2448	-	2448		370	370		2078
Total Sec.Ft.	83228	36441	6359	42800		3737	3737		39063
Mean	2685	1176	205	1381		121	121		1260
Ac.Ft.	164800	72300	12600	84900		7400	7400		77500

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY CANADA
MAY - 1927

Day	Natural flow St. Mary R. at Kimball.	Canada's share	St. Mary R. at Kimball	Diverted by Canada	Excess - Deficiency of share delivered
1	1800	1067	2280	224	1213
2	1735	1034	2390	207	1356
3	1659	996	2370	205	1374
4	1313	823	2030	227	1207
5	1210	772	1810	213	1038
6	1646	990	1640	217	650
7	1394	864	1450	214	586
8	1376	855	1360	223	505
9	1304	819	1300	227	481
10	1293	813	1320	256	507
11	1293	813	1340	289	527
12	1234	784	1290	295	506
13	1217	776	1230	368	454
14	1303	819	1230	384	411
15	1472	903	1310	410	407
16	1947	1140	1670	416	530
17	2554	1444	2260	377	816
18	3359	1846	2820	381	974
19	3811	2073	3440	377	1367
20	3774	2054	4020	325	1966
21	3636	1985	4250	197	2265
22	3463	1899	4230	103	2331
23	3305	1819	4020	83	2201
24	4019	2176	4360	75	2184
25	4026	2180	4340	99	2160
26	4129	2231	4120	113	1889
27	3937	2135	3700	141	1565
28	3940	2137	3540	165	1403
29	5803	3068	5300	175	2232
30	5046	2690	4570	95	1880
31	5230	2782	4860	90	2078
Total Sec.ft.	83228	46787	85850	7171	39063
Mean	2685	1509	2770	231	1260
Ac.ft.	164800	92500	170000	14200	77500

No deficiency during May

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
WATER STORED OR RELEASED FROM SHERBURNE RESERVOIR
JUNE - 1927

Day	INFLOW TO SHERBURNE RESERVOIR: Recorded Inflow: Swift-current Creek	Canyon Creek	Un-recorded Inflow Estimated	Total Inflow	Outflow Swiftcurrent at Sherburne	Stored in Reservoir Sec.ft.	Released from Reservoir Sec.ft.
1	236	30	101	367	758	-	391
2	260	39	114	413	754	-	341
3	331	55	146	532	639	-	107
4	373	55	163	591	591	-	-
5	414	72	185	671	591	80	-
6	640	167	306	1113	595	518	-
7	963	228	454	1645	975	670	-
8	1060	235	494	1789	1580	209	-
9	1020	214	470	1704	1660	44	-
10	1030	190	463	1683	1650	33	-
11	1020	167	326	1513	1530	-	17
12	851	131	270	1252	1470	-	218
13	644	96	203	943	1340	-	397
14	675	123	220	1018	1130	-	112
15	951	153	304	1408	1070	338	-
16	882	134	280	1296	1070	226	-
17	855	105	264	1224	1080	144	-
18	851	91	259	1201	1090	111	-
19	764	96	236	1096	1090	6	-
20	696	82	214	992	1000	-	8
21	664	89	163	916	906	10	-
22	714	98	175	987	620	367	-
23	783	120	195	1098	317	781	-
24	959	144	238	1341	30	1311	-
25	897	144	225	1266	30	1236	-
26	768	140	196	1104	31	1073	-
27	700	115	175	990	31	959	-
28	606	98	152	856	31	825	-
29	596	89	148	833	31	802	-
30	603	72	145	820	31	789	-
Total Sec.ft.	21806	3572	7284	32662	23721	10532	1591
Mean	727	119	243	1089	791	351	53
Ac.ft.	43300	7080	14460	64840	47100	20890	3150

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
June - 1927

Day	St.Mary River at Kimball	Diverted by U.S.B.R.	Stored by U.S.B.R.	Total in Sec-ft.	Stored Water Released	Natural Flow St.Mary River
1	4540		6	4546	-	4546
2	3980		-	3980	293	3687
3	3900		-	3900	391	3509
4	3540		-	3540	341	3199
5	3480		-	3480	107	3373
6	3640		-	3640	-	3640
7	4040		80	4120	-	4120
8	5090		518	5608	-	5608
9	6290		670	6960	-	6960
10	6950		209	7159	-	7159
11	7480		44	7524	-	7524
12	7410		33	7443	-	7443
13	6890		-	6890	17	6873
14	6420		-	6420	218	6202
15	6230		-	6230	397	5833
16	6180		-	6180	112	6068
17	6180		338	6518	-	6518
18	6090		226	6316	-	6316
19	5900		144	6044	-	6044
20	5720	-	111	5831	-	5831
21	5430	-	6	5436	-	5436
22	5150	2	-	5152	8	5144
23	4940	7	10	4957	-	4957
24	4900	16	367	5283	-	5283
25	4690	7	781	5478	-	5478
26	4480	6	1311	5797	-	5797
27	4380	4	1236	5620	-	5620
28	4210	4	1073	5287	-	5287
29	3960	3	959	4922	-	4922
30	3780	28	825	4633	-	4633
Total Sec.ft.	155870	77	8947	164894	1884	163010
Mean	5200	2.6	298	5496	60	5430
Ac.ft.	309200	155	17700	327000	3590	323000

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY UNITED STATES
June - 1927

Day	Natural Flow St.Mary River	AVAILABLE FOR USE BY U.S.A. U.S. Share	Released from Storage	Total Available	USED BY U.S.A. Diverted	Stored	Total Used	Excess Of Share Used	Deficiency
1	4546	2106	-	2106		6	6		2100
2	3687	1676	293	1969		-	-		1969
3	3509	1588	391	1979		-	-		1979
4	3199	1432	341	1773		-	-		1773
5	3373	1520	107	1627		-	-		1627
6	3640	1653	-	1653		-	-		1653
7	4120	1893	-	1893		80	80		1813
8	5608	2637	-	2637		518	518		2119
9	6960	3313	-	3313		670	670		2643
10	7159	3413	-	3413		209	209		3204
11	7524	3595	-	3595		44	44		3551
12	7443	3555	-	3555		33	33		3522
13	6873	3270	17	3287		-	-		3287
14	6202	2934	218	3152		-	-		3152
15	5833	2750	397	3147		-	-		3147
16	6068	2867	112	2979		-	-		2979
17	6518	3092	-	3092		338	338		2754
18	6316	2991	-	2991		226	226		2765
19	6044	2855	-	2855		144	144		2711
20	5831	2749	-	2749		111	111		2638
21	5436	2551	-	2551	-	6	6		2545
22	5144	2405	8	2413	2	-	2		2411
23	4957	2312	-	2312	7	10	17		2295
24	5283	2475	-	2475	16	367	383		2092
25	5478	2572	-	2572	7	781	788	No excess used during June	1784
26	5797	2731	-	2731	6	1311	1317		1414
27	5620	2643	-	2643	4	1236	1240		1403
28	5287	2477	-	2477	4	1073	1077		1400
29	4922	2294	-	2294	3	959	962		1332
30	4633	2150	-	2150	28	825	853		1297
Total Sec.ft.	163010	76499	1884	78383	77	8947	9024		69359
Mean	5430	2550	60	2610	2.6	298	301		2310
Ac.Ft.	323000	151700	3590	155300	155	17700	17860		137400

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY CANADA
JUNE - 1927

Day	Natural flow St. Mary R. at Kimball.	Canada's share	St. Mary R. at Kimball	Diverted by Canada	Excess - Deficiency of share delivered	
1	4546	2440	4540	86	2100	
2	3687	2011	3980	74	1969	
3	3509	1921	3900	73	1979	
4	3199	1767	3540	71	1773	
5	3373	1853	3480	70	1627	
6	3640	1987	3640	139	1653	
7	4120	2227	4040	234	1813	
8	5608	2971	5090	230	2119	
9	6960	3647	6290	216	2643	
10	7159	3746	6950	176	3204	
11	7524	3929	7480	184	3551	
12	7443	3888	7410	167	3522	
13	6873	3603	6890	143	3287	
14	6202	3268	6420	133	3152	
15	5833	3083	6230	138	3147	
16	6068	3201	6180	156	2979	
17	6518	3426	6180	168	2754	
18	6316	3325	6090	190	2765	
19	6044	3189	5900	247	2711	
20	5831	3082	5720	223	2638	
21	5436	2885	5430	231	2545	
22	5144	2739	5150	311	2411	
23	4957	2645	4940	431	2295	
24	5283	2808	4900	437	2092	
25	5478	2906	4690	427	1784	
26	5797	3066	4480	456	1414	
27	5620	2977	4380	437	1403	
28	5287	2810	4210	443	1400	
29	4922	2628	3960	437	1332	No deficiency during June.
30	4633	2483	3780	431	1297	
Total Sec.ft.	163010	86511	155870	7159	69359	
Mean	5430	2880	5200	239	2310	
Ac.ft.	323000	171300	309200	14200	137400	

DETERMINATION OF NATURAL FLOW OF ST. MARY RIVER
WATER STORED OR RELEASED FROM SHERBURNE RESERVOIR
JULY - 1927

Day	INFLOW TO SHERBURNE RESERVOIR: Recorded Inflow: Swift-current Creek	Canyon Creek	Un-recorded Inflow Estimated	Total Inflow	Outflow Swiftcurrent at Sherburne	Stored in Reservoir Sec.ft.	Released from Reservoir Sec.ft.
1	491	66	56	613	32	581	-
2	421	80	50	551	193	358	-
3	424	94	52	570	502	68	-
4	510	91	60	661	696	-	35
5	556	82	64	702	723	-	21
6	501	80	46	627	735	-	108
7	485	82	45	612	731	-	119
8	510	78	47	635	731	-	96
9	530	74	48	652	731	-	79
10	491	70	45	606	731	-	125
11	456	66	52	574	588	-	14
12	418	62	48	528	419	109	-
13	379	58	44	481	419	62	-
14	341	59	40	440	419	21	-
15	354	60	41	455	421	34	-
16	376	62	53	491	421	70	-
17	370	58	55	483	424	59	-
18	373	56	60	489	481	8	-
19	379	55	65	499	588	-	89
20	376	53	64	493	574	-	81
21	347	49	69	465	588	-	123
22	338	48	70	456	584	-	128
23	328	44	67	439	550	-	111
24	315	43	65	423	436	-	13
25	306	43	63	412	436	-	24
26	299	44	62	406	433	-	28
27	318	44	65	477	358	69	-
28	272	36	54	362	324	38	-
29	227	33	47	307	322	-	15
30	221	34	46	301	322	-	21
31	230	40	49	319	324	-	5
Total Sec.ft.	11942	1844	1692	15478	15236	1477	1235
Mean	385	60	55	499	491	47.7	40
Ac.ft.	23660	3650	3350	30660	30190	2930	2460

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
July - 1927

Day	St.Mary River at Kimball	Diverted by U.S.B.R.	Stored by U.S.B.R.	Total in Sec. ft.	Stored Water Released	Natural Flow St.Mary River
1	3380	218	802	4400	-	4400
2	3060	223	789	4072	-	4072
3	3060	228	581	3869	-	3869
4	3300	231	358	3889	-	3889
5	3480	232	68	3780	-	3780
6	3360	288	-	3648	35	3613
7	3200	335	-	3535	21	3514
8	3140	342	-	3482	108	3374
9	3060	392	-	3452	119	3333
10	3020	400	-	3420	96	3324
11	2900	432	-	3332	79	3253
12	2670	448	-	3118	125	2993
13	2400	446	-	2846	14	2832
14	2300	448	109	2857	-	2857
15	2370	440	62	2872	-	2872
16	2350	402	21	2773	-	2773
17	2080	476	34	2590	-	2590
18	1970	478	70	2518	-	2518
19	1940	476	59	2475	-	2475
20	1950	474	8	2432	-	2432
21	1970	470	-	2440	89	2351
22	1950	468	-	2418	81	2337
23	1870	470	-	2340	123	2217
24	1780	466	-	2246	128	2118
25	1670	464	-	2134	111	2023
26	1600	460	-	2060	13	2047
27	1520	456	-	1976	24	1952
28	1440	462	-	1902	28	1874
29	1340	460	69	1869	-	1869
30	1290	452	38	1780	-	1780
31	1400	462	-	1862	15	1847
Total Sec.ft.	72820	12499	3068	88387	1209	87178
Mean	2349	403	99	2851	39	2812
Ac.ft.	144400	24800	6090	175300	2400	172900

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY UNITED STATES
July - 1927

Day	Natural Flow St.Mary River	AVAILABLE FOR USE BY U.S.A. U.S. Share	Released from Storage	Total Available	USED BY U.S.A. Diverted	Stored	Total Used	Excess Of Share	Deficiency Used
1	4400	2033	-	2033	218	802	1020	No excess used during July	1013
2	4072	1869	-	1869	223	789	1012		857
3	3869	1768	-	1768	228	581	809		959
4	3889	1777	-	1777	231	358	589		1188
5	3780	1723	-	1723	232	68	300		1423
6	3613	1639	35	1674	288	-	288		1386
7	3514	1590	21	1611	335	-	335		1276
8	3374	1520	108	1628	342	-	342		1286
9	3333	1500	119	1619	392	-	392		1227
10	3324	1495	96	1591	400	-	400		1191
11	3253	1460	79	1539	432	-	432		1107
12	2993	1330	125	1455	448	-	448		1007
13	2832	1249	14	1263	446	-	446		817
14	2857	1262	-	1262	448	109	557		705
15	2872	1269	-	1269	440	62	502		767
16	2773	1220	-	1220	402	21	423		797
17	2590	1128	-	1128	476	34	510		618
18	2518	1092	-	1092	478	70	548		544
19	2475	1071	-	1071	476	59	535		536
20	2432	1049	-	1049	474	8	482		567
21	2351	1009	89	1098	470	-	470		628
22	2337	1002	81	1083	468	-	468		615
23	2217	942	123	1065	470	-	470		595
24	2118	892	128	1020	466	-	466		554
25	2023	845	111	956	464	-	464		492
26	2047	857	13	870	460	-	460		410
27	1952	809	24	833	456	-	456		377
28	1874	770	28	798	462	-	462		336
29	1869	767	-	767	460	69	529		238
30	1780	723	-	723	452	38	490		233
31	1847	757	15	772	462	-	462		310
Total Sec.Ft.	87178	38417	1209	39626	12499	3068	15567		24059
Mean	2812	1239	39	1278	403	99	502		776
Ac.Ft.	172900	76180	2400	78580	24780	6090	30870		47710

DIVISION OF WATER OF ST.MARY RIVER
WATER AVAILABLE FOR USE AND USED BY CANADA
JULY - 1927

Day	Natural flow St. Mary R. at Kimball.	Canada's Share	St.Mary R. at Kimball	Diverted by Canada	Excess - Deficiency of share delivered	
1	4400	2367	3380	443	1013	
2	4072	2203	3060	405	857	
3	3869	2101	3060	450	959	
4	3889	2112	3300	464	1188	
5	3780	2057	3480	454	1423	
6	3613	1974	3360	418	1386	
7	3514	1924	3200	437	1276	
8	3374	1854	3140	441	1286	
9	3333	1833	3060	422	1227	
10	3324	1829	3020	437	1191	
11	3253	1793	2900	444	1107	
12	2993	1663	2670	486	1007	
13	2832	1583	2400	500	817	
14	2857	1595	2300	317	705	
15	2872	1603	2370	190	767	
16	2773	1553	2350	247	797	
17	2590	1462	2080	366	618	
18	2518	1426	1970	351	544	
19	2475	1404	1940	386	536	
20	2432	1383	1950	372	567	
21	2351	1342	1970	363	628	
22	2337	1335	1950	324	615	
23	2217	1275	1870	359	595	
24	2118	1226	1780	349	554	
25	2023	1178	1670	372	492	No deficiency during July
26	2047	1190	1600	456	410	
27	1952	1143	1520	437	377	
28	1874	1104	1440	446	336	
29	1869	1102	1340	439	238	
30	1780	1057	1290	420	233	
31	1847	1090	1400	319	310	
Total Sec.ft.	87178	48761	72820	12314	24059	
Mean	2812	1573	2349	397	776	
Ac.ft.	172900	96720	144400	24400	47710	

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
WATER STORED OR RELEASED FROM SHERBURNE RESERVOIR
AUGUST - 1927

Day	INFLOW TO SHERBURNE RESERVOIR: Recorded Inflow: Swift-current Creek	Canyon Creek	Un-recorded Inflow Estimated	Total Inflow	Outflow Swiftcurrent at Sherburne	Stored in Reservoir Sec.ft.	Released from Reservoir Sec.ft.
1	218	41	40	299	326	No water stored during August	27
2	209	39	38	286	394		108
3	200	35	36	271	424		153
4	206	33	27	266	421		155
5	209	34	37	280	421		141
6	203	34	36	273	419		146
7	194	36	35	265	416		151
8	186	38	34	258	413		155
9	171	36	32	239	484		245
10	169	33	32	234	508		274
11	163	32	36	231	496		265
12	163	32	40	235	487		252
13	155	30	54	239	487		248
14	144	29	50	223	478		255
15	144	30	50	224	463		239
16	133	35	49	217	451		234
17	186	72	75	333	448		115
18	189	56	71	316	442		126
19	177	44	64	285	433		148
20	183	40	65	288	427		139
21	189	41	57	287	427		140
22	171	40	53	264	448		184
23	155	36	48	239	451		212
24	144	33	44	221	463		242
25	136	31	42	209	463		254
26	133	26	40	199	511		312
27	123	24	37	184	508		324
28	111	22	33	166	366		200
29	111	22	33	166	300		134
30	126	21	37	184	286		102
31	128	33	40	201	265		64
Total Sec.ft.	5129	1088	1364	7582	13326		5744
Mean	165	35	44	244	430		185
Ac.ft.	10140	2150	2710	15000	26400		11400

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
August - 1927

Day	St.Mary River at Kimball	Diverted by U.S.B.R.	Stored by U.S.B.R.	Total in Sec. ft.	Stored Water Released	Natural Flow St.Mary River
1	1300	456	No water stored during August	1756	21	1735
2	1190	464		1654	5	1649
3	1130	464		1594	27	1567
4	1090	464		1554	108	1446
5	1030	474		1504	153	1351
6	992	474		1466	155	1311
7	956	472		1428	141	1287
8	942	470		1412	146	1266
9	913	470		1383	151	1232
10	927	470		1397	155	1242
11	920	470		1390	245	1145
12	906	468		1374	274	1100
13	886	466		1352	265	1087
14	963	460		1423	252	1171
15	985	468		1453	248	1205
16	934	470		1404	255	1149
17	1050	474		1524	239	1285
18	1070	464		1534	234	1300
19	1050	460		1510	115	1395
20	1060	464		1524	126	1398
21	1200	474		1674	148	1526
22	1130	472		1602	139	1463
23	1100	460		1560	140	1420
24	1130	380		1510	184	1326
25	1090	368		1458	212	1246
26	1070	317		1387	242	1145
27	1050	315		1365	254	1111
28	1120	215		1335	312	1023
29	1060	196		1256	324	932
30	1070	122		1192	200	992
31	1030	87		1117	134	983
Total Sec.ft.	32344	12748		45092	5604	39488
Mean	1040	411		1454	181	1274
Ac.ft.	64100	25300		89400	11100	78500

DISIVION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY UNITED STATES
August - 1927

Day	Natural Flow St.Mary River	AVAILABLE FOR USE BY U.S.A. U.S. Share	Released from Storage	Total Available	USED BY U.S.A. Diverted	Stored	Total Used	Excess Of Share Used	Deficiency Used
1	1735	700	21	721	456	No water stored during August	456	No excess used during August	265
2	1649	658	5	663	464		464		199
3	1567	617	27	644	464		464		180
4	1446	556	108	664	464		464		200
5	1351	509	153	662	474		474		188
6	1311	489	155	644	474		474		170
7	1287	477	141	618	472		472		146
8	1266	466	146	612	470		470		142
9	1232	449	151	600	470		470		130
10	1242	454	155	609	470		470		139
11	1145	406	245	651	470		470		181
12	1100	383	274	657	468		468		189
13	1087	377	265	642	466		466		176
14	1171	419	252	671	460		460		211
15	1205	436	248	684	468		468		216
16	1149	408	255	663	470		470		193
17	1285	476	239	715	474		474		241
18	1300	483	234	717	464		464		253
19	1395	531	115	646	460		460		186
20	1398	532	126	658	464		464		194
21	1526	596	148	744	474		474		270
22	1463	565	139	704	472		472		232
23	1420	543	140	683	460		460		223
24	1326	496	184	680	380		380		300
25	1246	456	212	668	368		368		300
26	1145	406	242	648	317		317		331
27	1111	389	254	643	315		315		328
28	1023	345	312	657	215		215		442
29	932	299	324	623	196		196		427
30	992	329	200	529	122		122		407
31	983	325	134	459	87		87		372
Total Sec.Ft.	39488	14575	5604	20179	12748		12748		7431
Mean	1274	470	181	651	411		411		240
Ac.Ft.	78500	28900	11100	40000	25300		25300		14700

DIVISION OF WATER OF ST.MARY RIVER
WATER AVAILABLE FOR USE AND USED BY CANADA
AUGUST - 1927

Day	Natural flow St. Mary R. at Kimball	Canada's Share	St.Mary R. at Kimball	Diverted by Canada	Excess - Deficiency of share delivered	
1	1735	1035	1300	418	265	No deficiency during August
2	1649	991	1190	477	199	
3	1567	950	1130	505	180	
4	1446	890	1090	492	200	
5	1351	842	1030	507	188	
6	1311	822	992	507	170	
7	1287	810	956	507	146	
8	1266	800	942	517	142	
9	1232	783	913	523	130	
10	1242	788	927	559	139	
11	1145	739	920	533	181	
12	1100	717	906	531	189	
13	1087	710	886	527	176	
14	1171	752	963	519	211	
15	1205	769	985	523	216	
16	1149	741	934	515	193	
17	1285	809	1050	519	241	
18	1300	817	1070	531	253	
19	1395	864	1050	517	186	
20	1398	866	1060	511	194	
21	1526	930	1200	484	270	
22	1463	898	1130	525	232	
23	1420	877	1100	523	223	
24	1326	830	1130	541	300	
25	1246	790	1090	509	300	
26	1145	739	1070	452	331	
27	1111	722	1050	416	328	
28	1023	678	1120	496	442	
29	932	633	1060	460	427	
30	992	663	1070	454	407	
31	983	658	1030	433	372	
Total Sec.ft.	39488	24913	32344	15531	7431	
Mean	1274	804	1040	501	240	
Ac.ft.	78500	49600	64100	30800	14700	

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
WATER STORED OR RELEASED FROM SHERBURNE RESERVOIR
SEPTEMBER - 1927

Day	INFLOW TO SHERBURNE RESERVOIR: Recorded Inflow: Swift-current Creek	Canyon Creek	Un-recorded Inflow Estimated	Total Inflow	Outflow Swiftcurrent at Sherbourne	Stored in Reservoir Sec.ft.	Released from Reservoir Sec.ft.
1	266	107	37	410	263	147	-
2	251	77	34	362	288	74	-
3	266	53	32	351	309	42	-
4	218	47	27	292	309	-	17
5	197	41	24	262	306	-	44
6	177	38	22	237	304	-	67
7	183	42	22	247	304	-	57
8	171	41	21	233	302	-	69
9	149	43	20	212	300	-	88
10	144	49	20	213	298	-	85
11				255	296	-	41
12				238	298	-	60
13				659	320	339	-
14				893	346	547	-
15				773	363	410	-
16				500	368	132	-
17				432	368	64	-
18				355	368	-	13
19				322	366	-	44
20	236[e]	50[e]	45	300	360	-	60
21				289	356	-	67
22				232	350	-	118
23				184	343	-	159
24				176	336	-	160
25				176	331	-	155
26				201	320	-	119
27				196	315	-	119
28				188	309	-	121
29				177	300	-	123
30				172	296	-	124
Total Sec.ft.	6835	1538	1164	9537	9692	1755	1910
Mean	228	51	39	318	323	58	64
Ac.ft.	13600	3030	2290	18900	19200	3480	3780

DETERMINATION OF NATURAL FLOW OF ST.MARY RIVER
September - 1927

Day	St.Mary River at Kimball	Diverted by U.S.B.R.	Stored by U.S.B.R.	Total in Sec. ft.	Stored Water Released	Natural Flow St.Mary River
1	1100	4	-	1104	102	1002
2	1120	1	-	1121	64	1057
3	1210	1	147	1358	-	1358
4	1260	-	74	1334	-	1334
5	1290		42	1332	-	1332
6	1280		-	1280	17	1263
7	1360		-	1360	44	1316
8	1330		-	1330	67	1263
9	1280		-	1280	57	1223
10	1260		-	1260	69	1191
11	1290		-	1290	88	1202
12	1290		-	1290	85	1205
13	2020		-	2020	41	1979
14	2630		-	2630	60	2570
15	2370		339	2709	-	2709
16	2220		547	2767	-	2767
17	2050		410	2460	-	2460
18	1950		132	2082	-	2082
19	1810		64	1874	-	1874
20	1720		-	1720	13	1707
21	1600		-	1600	44	1556
22	1510		-	1510	60	1450
23	1440		-	1440	67	1373
24	1470		-	1470	118	1352
25	1400		-	1400	159	1241
26	1330		-	1330	160	1170
27	1260		-	1260	155	1105
28	1200		-	1200	119	1081
29	1150		-	1150	119	1031
30	1140		-	1140	121	1019
Total Sec.ft.	45340	6	1755	47101	1829	45272
Mean	1510		58	1570	61	1509
Ac.ft.	89900	12	3480	93400	3630	89800

DIVISION OF WATER OF ST. MARY RIVER
WATER AVAILABLE FOR USE AND USED BY UNITED STATES
September - 1927

Day	Natural Flow St.Mary River	AVAILABLE FOR USE BY U.S.A. U.S. Share	Released from Storage	Total Available	USED BY U.S.A. Diverted	Stored	Total Used	Excess Of Share	Deficiency Used
1	1002	334	102	436	4	-	4		432
2	1057	362	64	426	1	-	1		425
3	1358	512	-	512	1	147	148		364
4	1334	500	-	500	-	74	74		426
5	1332	499	-	499	-	42	42		457
6	1263	465	17	482		-	-		482
7	1316	491	44	535		-	-		535
8	1263	465	67	532		-	-		532
9	1223	445	57	502		-	-		502
10	1191	429	69	498		-	-		498
11	1202	434	88	522		-	-		522
12	1205	436	85	521		-	-		521
13	1979	823	41	864		-	-		864
14	2570	1118	60	1178		-	-		1178
15	2709	1188	-	1188		339	339		849
16	2767	1217	-	1217		547	547		670
17	2460	1063	-	1063		410	410		653
18	2082	874	-	874		132	132		742
19	1874	770	-	770		64	64		706
20	1707	687	13	700			-		700
21	1556	611	44	655			-		655
22	1450	558	60	618			-		618
23	1373	520	67	587			-		587
24	1352	509	118	627			-		627
25	1241	454	159	613			-		613
26	1170	418	160	578			-		578
27	1105	386	155	541			-		541
28	1081	374	119	493			-		493
29	1031	349	119	468			-		468
30	1019	343	121	464			-		464
Total Sec.Ft.	45272	17634	1829	19463	6	1755	1761		17702
Mean	1509	587	61	648	0.2	58	58		590
Ac.Ft.	89800	34970	3630	38600	12	3480	3490		35100

No excess used during September

DIVISION OF WATER OF ST.MARY RIVER
WATER AVAILABLE FOR USE AND USED BY CANADA
SEPTEMBER - 1927

Day	Natural flow St. Mary R. at Kimball	Canada's Share	St.Mary R. at Kimball	Diverted by Canada	Excess - Deficiency of share delivered
1	1002	668	1100	479	432
2	1057	695	1120	475	425
3	1358	846	1210	523	364
4	1334	834	1260	527	426
5	1332	833	1290	519	457
6	1263	798	1280	511	482
7	1316	825	1360	477	535
8	1263	798	1330	484	532
9	1223	778	1280	519	502
10	1191	762	1260	496	498
11	1202	768	1290	492	522
12	1205	769	1290	513	521
13	1979	1156	2020	500	864
14	2570	1452	2630	397	1178
15	2709	1521	2370	406	849
16	2767	1550	2220	416	670
17	2460	1397	2050	418	653
18	2082	1208	1950	414	742
19	1874	1104	1810	406	706
20	1707	1020	1720	437	700
21	1556	945	1600	435	655
22	1450	892	1510	433	618
23	1373	853	1440	424	587
24	1352	843	1470	446	627
25	1241	787	1400	397	613
26	1170	752	1330	379	578
27	1105	719	1260	412	541
28	1081	707	1200	454	493
29	1031	682	1150	452	468
30	1019	676	1140	454	464
Total Sec.ft.	45272	27638	45340	13695	17702
Mean	1509	922	1510	456	590
Ac.ft.	89800	54800	89900	27100	35100

No deficiency during September

TABLE 2.

DIVISION OF ST. MARY RIVER

CANADA

WATER AVAILABLE IN ACRE FEET

Month	St. Mary R. at Kimball	Rolph	Pothole Creek	Combined Flow
April	28400	1300	1560	31300
May	170000	5000	12300	187300
June	309000	4000	2960	316000
July	144000	732	2130	147000
August	64000	793	1090	65900
September	89800	1050	2230	93100
October	71100	744	1310	73200
TOTAL	876300	13619[a]	24200[b]	914000[c]

DISPOSITION

Month	Diverted by A.R.& I.Co.	Wasted by A.R.& I.Co.	Gain A.R. & I. Co.	Stored in Chin Res.	St.Mary R. Lethbridge.
April	1220	1380	680		38700
May	14200	11400	2900	4430	232000
June	14200	5570	2950	2050	352000
July	24400	4980	2460	7350	139000
August	30800	6500	4030	9540	48100
September	27100	7650	6760	6740	82700
October	10700	3220	720	1920	
TOTAL	123000[d]	40700[e]	20500[f]	32030	x

a - includes seepage losses from U.S.St. Mary Canal.
b - natural flow only.
c - computed.
d - diverted by A.R.& I. Co. at Kimball.
e - wasted in Pinepound & Pothole wasteways.
f - gain over losses between Kimball & Magrath.
x - below all points of diversion.

Table 3

DISPOSITION OF THE WATERS OF LODGE CREEK

1927

QUANTITIES IN ACRE FEET

Irrigator	March	April	May	June	July	Aug.	Sept.	Oct.	Total
R.L.Roth			No diversion						
A.Sturm			"	"					
J.A.English		Estimated		"					50
H.A.Hudie			No	"					
T.S.Clarke (North)			"	"					
" (South)		Estimated		"					5
J.E.Hartt			"	"					40
J.Read			"	"					30
W.Mitchell (Lower)			"	"					5
J.Spangler			"	"					67
G.Legge			No	"					
Mitchell Bros.			"	"					
Jahn			"	"					
Gregg			"	"					
Hammond									
Total diverted in Canada									197
FLOW AT BOUNDARY AS DELIVERED TO UNITED STATES	10600	31700	34200	4170	460	55	-	-	82,200

Table 3

DISPOSITION OF THE WATERS OF BATTLE CREEK

1927

QUANTITIES IN ACRE FEET

Irrigator	March	April	May	June	July	Aug.	Sept.	Oct.	Total
J.Spangler	Estimated diversion								52
W.Patterson	"		"						54
Shepherd Bros.	"		"						63
J.Wilkes	"		"						8
Stirling & Nash	"		"						95
Wood & Anderson	No		"						
E.Parsonage	"		"						
J.Leslie	"		"						
Lindner Bros.	"		"						
Marshall & Gaff	"		"						
J. Gaff	"		"						
W. Wilson	"		"						
Gilchrist Bros.	"		"						
L. Richardson	"		"						
J.McKinnon	"		"						
H.Badger	"		"						
Total diverted by Canada									272
FLOW AT BOUNDARY AS DELIVERED TO UNITED STATES	904	39900	33100	15500	4000	1480	1190	1780	98,900

Table 3

DISPOSITION OF THE WATERS OF FRENCHMAN RIVER

1927

QUANTITIES IN ACRE FEET

Irrigator	March	April	May	June	July	Aug.	Sept.	Oct.	Total
Armstrong (West)	Estimated diversion								140
Pearse (B)	"		"						109
J.Bolingbroke	"		"						8
A.E.Bate	"		"						15
" (South)	"		"						4
A.Morrison	No		"						
G.N.Morrison	"		"						
D.J.Wylie	"		"						
Kearney Bros.	"		"						
T.Kokott	"		"						
E.Cross	"		"						
Thompson	"		"						
Strong	"		"						
Gilchrist Bros.	Estimated		"						3
T.A.Drury	No		"						
V.Bull	"		"						
Total diverted by Canada									279
FLOW AT BOUNDARY AS DELIVERED TO UNITED STATES	6460	86900	64600	28400	7130	2520	1760	2190	200,000

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